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Colonel Louis McC. Little, U. S. Marine Corps, Editor

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THE MAJOR GENERAL COMMANDANT'S HOUSE

By Major J. C. Fegan, U.S.M.C.

THE Corps' contribution to historic buildings in Washington is even with the expectations of those who know our history.

There sits on the south side of Eye Street between Seventh and Eighth, Southeast, a large, box-like, drab structure, presenting a rather severe yet attractive style. It is truly a marine's house, for it was built by marines under the eye of Marine officers and with the crudest sort of implements, as the days of 1803 offered but little along this line. The moulds in which the bricks were shaped were irregular in size and odd in dimensions. The clay in these bricks was taken from a spot which is about midway between the site of the present barracks and the Navy Yard gate. Our files fail to preserve the name of the architect, but they do admit the fact that he was given the generous sum of one hundred dollars for this exhibition of his skill. The original house was a two-story affair, Colonial in design, with walls about three feet thick. The front of the house faces the parade grounds of the barracks, and surrounding it was a high rugged iron fence marked by two double ornate gates, over which specially selected, smart-looking sentries held full charge.

There were good reasons for all this protection, because this house served not only as the home of the commandant but also as his headquarters, and as such held the Military Chest, all trophies, records and seals belonging to the Corps. Memories of some of our officers of those times tell us that part of the cellar of this house was used as a temporary stopping-place for certain unruly citizens, whose ideas did not coincide with those of high Government officials, among them being Aaron Burr. History tells us that in 1814 when Washington was burned by the British, their commander, C. A. Ross, was so impressed with the security of the house that he ordered it spared in order that he might use it as his headquarters. Upon his occupation of it he turned the cellar into a stable for his mounts, while his personal staff shared with him the space in the upper levels. Gather no idea that this house was turned over to the invaders without cost. The Marines' memories were not short, for they had labored long and hard to have an official home and they did not propose to let it go cheaply. As they were outnumbered they were finally forced to yield; but their stand was courageous to the last. The original doors and floors showed holes and scars made by British bayonets and sledges. The old walls and staircase carried visible signs of bloodshed.

In 1814 every Government department was its own banker; that is, each chief kept the money given by Congress to carry on departmental affairs. This meant that the Commandant of Marines had in his headquarters the

money allowed for the conduct of business affairs of the Corps for that year. This figure included the money necessary for pay, food, clothing, medicines, wagons, forage for animals, repairs and fines. So upon the receipt of this money, which I am told was less than $50,000 annually, it was placed in a strongly constructed and well-locked chest, known in the Corps as the "Military Chest," which was kept under guard in the Commandant's office. When it was found necessary to buy a new wagon, shoes or rifles, verbal authority was given by the Commandant, and upon the presentation of a satisfactory bill the chest was opened by the Commandant or his aide and the necessary money taken out. Officers and men were paid in cash by calling at the office. Sometimes weekly payments were made. Those on duty at distant garrisons and on ships were paid by the dispatching of funds via certain officers.

Corps yarns include one which claims that when Washington was being prepared to meet the British invasion the two Marine sergeants whose duty it was to guard the Military Chest carefully dug a hole in a certain part of the yard and buried the chest. However, they failed to disclose the location of the spot, and rushed off to participate in the Battle of Bladensburg, where they were both killed. The chest could not be located, and as it contained about $25,000 the Corps' business affairs were restricted, considerably to the embarrassment and hardship of its personnel. When the new and present barracks were being built instructions were given to be on the lookout for the Military Chest, but it was never found. Perhaps it was located by the British.

Colonel Archibald Henderson, who was commandant from 1820 to 1860, held the record for occupancy of the home. Under his reign the house was overhauled and modified, but the two main attractions, namely, the elaborate and battle-scarred mahogany staircase and the beautiful cut-glass chandeliers, were carefully preserved.

No changes of any consequence were made in the house until about 1890, during Colonel Charles G. McCawley's regime (1876-1891). This officer changed the attic of several small rooms with dormer windows into a third floor with full sleeping accommodations, covered by a mansard roof. The Colonial veranda with its massive columns and iron railings bordering the wide steps leading from two sides was changed to the present style. The outbuildings where the servants and animals were quartered were removed.

The next commandant to effect noticeable changes in the house was General George Barnett in 1914. He had a room added on the ground floor and also augmented the living facilities on the second floor. It appears that during its occupancy by General Heywood (1891-1902) all the interior woodwork was painted in what is known by our commandants as "Heywood Brown," the reason being that he thought wood of this color more durable. However, this color was changed later on to white, which conformed more nearly to the present-day fashion and also added considerably to the attractiveness of the interior.

General Barnett instituted a new and splendid custom, but only after several years of struggle and research. He succeeded in obtaining permission to use appropriations for the purpose of purchasing paintings of all commandants of the Corps; so there are today hanging on the walls of the house oil paintings of all our commandants save that of one Colonel Anthony Gail, who was commandant during but a short period about 1800. However, the failure to locate his likeness is not a serious loss. The General's motive in doing this was principally to depict the successive changes in the uniform of our commandants.

Since 1914 no major changes have been made. As we see it today we are looking at the oldest official house in Washington, because it was the only official building permitted to remain standing when this city was burned in 1814 by the British.

THE UNITED STATES MARINES AT CHATEAU THIERRY—FOREWORD

312 East Prospect Street, Marquette, Michigan,
July 20, 1928.

Commander of United States Marines,
Quantico, Virginia.

Dear Commander:

I have always admired the great fight of the Marines at Chateau Thierry about a decade ago. And I have herewith, with such data as I have been able to secure, written out a brief account of it. It would please me immensely if it were published in some magazine devoted to the interests of the Marines.

Very sincerely yours,

A. J. RICHARDSON.

THINGS looked pretty bad for the Allies on the Western Front in the early days of July, 1918. Russia had quit, and Germany was thus able to augment her already immense army on this front by two million seasoned troops. Slowly but surely the English and French and other allied armies were forced back towards the sea and destruction. Even we in America had grown doubtful of the ultimate result, as the great majority of the American troops were not yet sufficiently well trained to face an enemy like Germany with her great military machine.

An American Red Cross nurse, working in an improvised French military hospital at Chateau Thierry, had stepped out-of-doors for a brief respite from her exacting duties. She had worked practically night and day nursing the brave Frenchmen, back from the bitter struggle to hold the allied lines. She had seen the heroism of these men under many and diverse conditions, seen them when their mortal agonies were almost too much for mere human flesh and bone to endure, seen them dying, and with their last breaths, ask that messages to wife and mother and children be sent. "O, God," she thought, "must it all be in vain?" And then she thought of home and friends in America over the sea. In the midst of her reveries, she thought she detected a note different from the clattering of army ambulances with their fresh loads of wounded, and the clattering of armies falling back to new positions. But no, it could not be. She was dreaming—"seeing and hearing things." There it was again, a faint, sweet sound as of martial music. Listening intently, she heard, "There'll Be a Hot Time In the Old Town To-night." Then again, the glorious "Star Spangled Banner." Yes, yes, it must be. The Americans were coming. Her prayers and dreams were about to be answered. Pretty soon she was able to see advancing men. And, practiced as she was in matters military, she soon discerned the well-known

style and uniforms of the United States Marines. Gayly they came, these brave American boys, youth and buoyancy in their step and look, idealism and purpose in their eyes. As they came to a halt near her, a French officer rode up, saying: "You are to fall back to ———," naming a place prepared for the Americans in the rear. *"Fall back!"* replied the American commander. *"Hell! We just came! We'll let the Huns do the falling back."* The whole world now knows of the fight the Marines put up that fatal day at Chateau Thierry. They drove right into the great German machine, with its big guns and tens of thousands of seasoned troops. Every Marine's gun barked fast and furiously. And nearly every shot told, for the Marines, thank the Lord, were trained and experienced. So hot did the guns of the Marines become they grasped them by the barrels and clubbed their way to victory in terrific, hand-to-hand fighting. They opened up a breach three miles wide. But, alas, more than three-quarters of the Americans fell in the action! The remaining Marines held the line until more American troops and the retreating Frenchmen could be brought up to hold the line permanently. From that time, the star of the Kaiser waned. Little by little and slowly the curve of success went downwards for the enemy, while for the Allies, heartened by this initial punch, it began to rise. All the American troops acquitted themselves brilliantly and with true American courage. It merely happened that the Marines were "Johnnie on the spot," and they did their stuff.

AN EXPEDITIONARY MEDAL

By Major John A. Gray, U.S.M.C.

REWARDS are few for the average soldier; perhaps the greatest is the satisfaction of knowing that the job is well done. Decorations and medals go to the distinguished among us selected by reason of ability for the important missions, and to the fortunate of our comrades to whom the hand of opportunity has been extended. For the large majority who, through the years, perform the routine duties of the Corps at home, at sea, or abroad, the most valued possession, acquired during the course of military service in distant corners of the earth, is the Campaign Medal. There are those who affect to disdain these medals. There are the few who have the reputation for being "Medal Hunters." Between the two extremes is the average soldier, who takes the same pride in his campaign ribbons as he does in the uniform that supports them. At a glance he knows if the officer he meets has been out across the world engaged in the activities that have made the Marine Corps familiar to all, or has been spending the years shining the seat of his trousers in the confines of an office at home. These ribbons and the medals that they represent are indicative of the duties that a Marine performs during his career, and unless he has something to conceal or of which he is ashamed, he takes a just pride in their display on all occasions when it is fitting that they be worn.

There is a ribbon awarded in the Marine Corps of which the Corps should be extremely proud. This is the Expeditionary ribbon awarded for the duty which more than any other does most to enhance the reputation of the Corps and promote its esprit. This duty to which the Army, never, and on only infrequent occasions the Navy, can be assigned, without implying an act of war, it is the unique privilege of the Marine Corps to repeatedly perform. The reward for this service, distinctive of all others, is a hybrid ribbon, which is neither fish, flesh, nor fowl in the realm of military decorations. Upon occasions when medals and decorations are worn there is nothing to represent the class of duty that is performed by the Marine alone, for the reason that there is no medal to accompany the Expeditionary ribbon and orders forbid the wearing of this ribbon with medals or decorations. Is it for the reason that Marines should feel ashamed of Expeditionary duty? Decidedly no. Is it for the reason that the Expeditionary ribbon when worn with medals and decorations has a half finished, moulted appearance? Perhaps. Whatever the reason may be, the fact remains that Marine officers when in company with their comrades-at-arms of the sister services on occasions of ceremony cannot wear an award for a service which is distinctive of their Corps and which is perhaps the raison d'être for their Corps' continued existence.

There is a ribbon awarded by the Government of Nicaragua to officers and men of the Guardia Nacional for duty in the field. This ribbon has been awarded in a few instances to officers of the Marine Corps serving in Nicaragua but not with the Guardia. There is no medal accompanying this ribbon at the present time for the reason that the finances of the Nicaraguan Government, due to the recent revolution, are straitened and all disbursements have been cut to the minimum. It is the intention at a later date to issue an appropriate medal for this decoration. Far be it from the author of this plea to criticise either constructively or otherwise the policy or orders emanating from the Headquarters of the Marine Corps. Headquarters has doubtless excellent reasons for its expressed intention not to issue a medal to accompany the Expeditionary ribbon, and that of parsimony is unthinkable. I am of the belief, however, which coincides with the ideas of many officers of the Corps with whom I have discussed the matter in the years that have elapsed since the Expeditionary ribbon was issued, that a suitable medal would be an addition to this award of which all Marines would be very proud. Such a medal as reward for duty which no other arm is habitually called upon to perform would tend to strengthen esprit de corps and I feel sure would not be opposed by the Director of the Budget nor by either the Army or the Navy, provided of course that officers and men of both these latter services be issued the medal when participating with Marines on Expeditionary duty.

It is suggested for this medal one depicting a landing party of Marines similar to the attractive and inspiring posters used by the recruiting service and in addition a clasp inscribed with the proper geographical name for each expedition.

THE CONFEDERATE STATES MARINE CORPS

By Major G. W. Van Hoose, U.S.M.C.

ON February 14, 1861, the Confederate Congress passed a resolution authorizing the Committee on Naval Affairs to procure the attendance at Montgomery of such persons as they thought advisable to consult with. Upon the passage of this act the Chairman of the Naval Committee sent telegrams to numerous officers in the naval service, requesting them to repair to Montgomery at their earliest convenience.

February 18, 1861, Jefferson Davis was inaugurated. On the same day "an act to establish the Navy Department" was passed. The Secretary of the Navy was required to prepare and publish regulations for the government of the Navy. All laws of the United States, relating to the Navy and its officers, and not inconsistent with this act, were enacted as laws for the government of the Confederate States Navy. The President appointed Honorable Stephen Russell Mallory of Florida as Secretary of the Navy. Mr. Mallory had been chairman of the U. S. Senate Naval Committee at one time. When Mr. Mallory went into office, his Navy was without a single ship or any of the essentials of a Navy. The timber for his Navy stood in the forests, the iron ore required was still in the mines. There was not a rolling mill in the South capable of turning out a two and half inch plate, nor was there a workshop in the South capable of turning out a complete marine engine. Under the circumstances, what the Confederate Navy was able to accomplish was remarkable when one takes into consideration the difficulties and embarrassments under which they worked. The remarkable success which attended the Confederate commerce destroyers, was largely due to the neglect of the United States Government in not guarding their principal trade routes. Small as were the number of cruisers the Federal merchant marine was virtually driven from the high seas.

The Act of March 16, 1861, provided for a Navy and a Marine Corps. Under this act the Marine Corps was to consist of:

1 Major
1 Quartermaster
1 Paymaster
1 Adjutant
6 Captains
6 First Lieutenants
6 Second Lieutenants
1 Sergeant Major
1 Quartermaster Sergeant
24 Sergeants
24 Corporals
10 Musicians
600 Privates

These were to be organized into six companies. A company was to consist of one Captain, one First Lieutenant, one Second Lieutenant, four Sergeants, four Corporals, and one hundred Privates. The strength of the Corps was approximately twenty per cent. for each equivalent grade in the C. S. Navy.

The resignations of the officers from all branches of the services followed the secession of the states of which they were citizens. South Carolina being the first state to secede, the first resignations came from that state. As each of the other states withdrew from the Union, officers following their political convictions resigned their commissions. It has been estimated that by June 3, 1861, about twenty per cent. of the officers had resigned from the various services.

The resignations from the United States Marine Corps were as follows:

	Total in Corps	Southerners resigned	Southerners remaining in the Corps
Captains	13	3	3
First Lieutenants	20	6	4
Second Lieutenants	20	5	7

On May 20, 1861, by an act of Congress the Corps was increased and its senior officers given an increase in rank. Under this act the strength of the Corps was to be as follows:

1 Colonel
1 Lieutenant Colonel
1 Major
1 Quartermaster with the rank of Major
1 Adjutant with the rank of Major
1 Paymaster with the rank of Captain
10 Captains
10 First Lieutenants
20 Second Lieutenants
1 Sergeant Major
1 Quartermaster Sergeant
40 Sergeants
40 Corporals
10 Drummers
10 Fifers
2 Musicians
840 Privates

A navy ration was to be allowed the enlisted personnel. The value of a navy ration on March 1, 1861, was twenty-five cents.

Enlistments were at first for four years. Later on account of the difficulties of securing recruits it was changed to three years or the war, which was the enlistment period for the C. S. Army.

On September 24, 1862, the Corps was still further increased by an additional twenty Sergeants, twenty Corporals, twenty Drummers, twenty Fifers, and two Principal Musicians.

On October 2, 1862, men enrolled for the Army were allowed to choose service in the Marine Corps or the Navy.

From the United States Marine Corps came the nucleus of the officers for the C. S. Marine Corps. The following officers resigned from the U. S. Marine Corps and were commissioned in the C. S. Marine Corps:

Major Henry B. Tyler, of Virginia, Adjutant of the Corps
Captain and Brevet Major George H. Terrett, of Virginia
Captain Robert Tansill, of Virginia
Captain Algeron S. Taylor, of Virginia
Captain John D. Simms, of Virginia
First Lieutenant Israel Green, of Virginia
First Lieutenant John R. Tatnall, of Georgia
First Lieutenant Julius E. Meire, of Maryland
First Lieutenant George P. Turner, of Virginia
First Lieutenant Thomas S. Wilson, of Maryland
First Lieutenant Andrew J. Hays, of Alabama
First Lieutenant Adam N. Baker
Second Lieutenant George Holmes, of Florida
Second Lieutenant Calvin L. Sayre, of Alabama
Second Lieutenant Henry L. Ingraham, of South Carolina
Second Lieutenant Baker N. Howell, of Mississippi

Captain Algeron S. Taylor, on April 21, 1861, offered his resignation to the Secretary of the U. S. Navy. It was not accepted but he was dismissed from the service.

Captain Robert Tansill tendered his resignation while he was on the U. S. S. *Congress,* off South America. In his letter of resignation he gave quite a lengthy dissertation concerning his political views on the question of secession. When he arrived in New York city, on August 23, 1861, he was imprisoned, held without trial, and dismissed from the service. He was formally exchanged on January 10, 1862. This injustice was recognized by a Confederate Act of Congress which provided that "an officer of the Navy or Marine Corps who resigned from the United States service in consequence of secession and who was arrested and imprisoned in consequence of such resignation, and who subsequently joined the Navy or Marine Corps of the Confederate States should receive leave of absence, pay for and during such imprisonment and up to the time of their joining the Navy and Marine Corps of the Confederate States."

The organization of the Corps which was started at Montgomery was completed at Richmond. Colonel Lloyd J. Beall, a former U. S. Army officer, was appointed Commandant of the Corps. Henry B. Tyler was made Lieutenant Colonel of the Corps. George H. Terrett was made Major. Israel Green, who had captured John Brown at Harper's Ferry when the U. S. Marines attacked his fortress in the engine house at the arsenal, was made adjutant, with the rank of Major. Algeron S. Taylor was made quartermaster with the rank of Major. J. D. Simms, J. R. Tatnall, C. Holmes, J. E. Meire, T. S. Wilson, and A. J. Hays were appointed Captains. C. L. Sayre and B. K. Howell were made First Lieutenants and vacancies were subsequently filled from time to time. Captains R. T. Thom, A. C. Van Benthuysen, and all the lieutenants except Sayre and Howell were appointed

from civil life, while all the other officers except the Commandant, Colonel Beall, came from the United States Marine Corps.

General J. E. Johnson in a letter to General R. E. Lee, dated May 25, 1862, said:

"I respectfully suggest that Colonel Beall, of the Marine Corps, is eminently qualified for the grade of brigadier-general."

The Corps remained in and around Richmond until the summer of 1862. Because of the lack of trained seamen in the Navy many of the Marines were sent to the various ships for duty. In addition to duty afloat they were detailed for duty as guards at the Naval Stations. Finally such detachments and companies as had not been captured or isolated were gathered around Richmond where they were assigned duty at Drewry's Bluff. Upon the evacuation of Richmond they constituted a portion of the naval brigade, under the command of Commander John R. Tucker, and participated at the battle of Sailor's Creek.

Marine detachments were on the following vessels of the C. S. Navy:

Sumter. First Lieutenant B. K. Howell was in charge of the Marines on this cruiser, until she was blockaded at Gibralter by the *Kearsarge, Tuscarora,* and *Chippewa.* As no coal could be obtained here the commanding officer, Captain Raphael Semmes, paid off the crew and took most of his officers with him to England, where they joined the *Alabama.* The *Sumter* during her brief career captured eighteen vessels.

Alabama. When Captain Semmes and his officers were transferred to this vessel, First Lieutenant Baker K. Howell went in charge of the Marines and remained in charge until the *Alabama* was sunk by the *Kearsarge.* The *Alabama* during her career captured sixty-three vessels and sunk the U. S. S. Frigate *San Jacinto* and the U. S. S. Gunboat *Hatteras.*

Merrimac. The Marines on this celebrated ship were under Captain R. T. Thom, who remained on this vessel until she was destroyed to prevent her being captured. The Commanding Officer of the *Merrimac* in his official report concerning the celebrated engagement between the *Merrimac* and the *Monitor* had the following to say concerning the Marines:

"The Marine Corps was represented by Capt. Thom, whose tranquil mien gave evidence that the hottest fire was no novelty to him. One of his guns was served effectively and creditably by a detachment of United Artillery of Norfolk, under the command of Captain Kevill. The muzzle of their gun was struck by a shell from the enemy, which broke off a piece of the gun, but they continued to fire it as if it was uninjured."

This Marine detachment consisted of one Captain, one First Sergeant, one Sergeant, two Corporals, one Music, and forty-nine Privates.

Jamestown. Sergeant James A. Mercer and nineteen other Marines constituted the Marine detachment on this gunboat when they participated in the celebrated Naval engagement at Hampton Roads, in March, 1862, in which the U. S. S. Frigates *Congress, Cumberland,* and the *Minnesota* were sunk. This was during the fight between the *Merrimac* and the *Monitor.*

Atlanta. First Lieutenant G. W. Carey was in charge of the Marines on the iron-clad *Atlanta.* This vessel was an improved *Merrimac.* The Southern press had expected great things from this vessel. The career of the *Atlanta* was a brief one. She ran aground in Warshaw Sound, Georgia, while in pursuit of the monitors *Weehawken* and *Nahant.* These two vessels were the newest and strongest monitors afloat. The *Atlanta* was unable to extricate herself and was destroyed by the *Weehawken* while she was aground. The Federals made prisoners 165 officers and men of the *Atlanta,* including the Marine detachment of twenty-eight men. The loss of this ship was quite a blow to the C. S. Navy. The officers of this ship were harshly spoken of by the Southern newspapers.

Tallahassee. Second Lieutenant Edward Crenshaw had charge of the Marines on this vessel. This vessel was a splendid twin screw, fourteen knot, blockade runner originally named the *Atlanta.* When converted into a cruiser her name was changed to the *Tallahassee.* Her career was a brief but lurid one. After being chased by numerous naval vessels she was forced to put into Halifax for coal. At Halifax she was allowed sufficient coal to take her back to Wilmington. She boldly ran the blockade and anchored under the guns of Fort Fisher. In her brief career as the *Tallahassee* she burned sixteen vessels, scuttled ten, bonded five, and released two.

Her name, for some reason, was changed to the *Olustee,* and she again ran the blockade, capturing seven more vessels. She was pursued and fired upon by three cruisers, which had been captured blockade runners. She outran her pursuers and again anchored under the guns of Fort Fisher, unharmed. She was disarmed and converted into a blockade runner and her name changed to the *Chameleon.* Eventually she was seized by the British Government and turned over to the U. S. Government.

Chickamauga. According to the report of the Commandant of Marines, dated October 30, 1864, this vessel had a Marine detachment. This vessel was a former blockade runner. She ran the blockade at Wilmington on October 29, 1864. She captured several vessels within fifty miles of New York and then went to the east entrance of Long Island Sound capturing several more vessels. On account of the shortage of coal she put into Halifax where she was allowed sufficient coal to take her to Wilmington. She ran the blockade at Wilmington, thus closing her career as a belligerent upon the high seas. Her officers and crew participated in the defense of Fort Fisher. Just prior to the fall of Fort Fisher she was destroyed to prevent her being captured.

Savannah. This iron-clad was the flagship for Commodore Josiah Tatnall. Captain G. Holmes was in charge of the Marines on this vessel. She was blown up at Tybee Roads to prevent her being captured.

Sampson. The Marines on this gunboat were under Lieutenant Phillip Porcher.

Tennessee. When Admiral Buchanan, of *Merrimac* fame, took this iron-clad ram, with the remainder of his little squadron, consisting of the *Gaines, Morgan,* and the *Selma,* to fight Farragut's fleet, consisting of four

monitors and fourteen other naval vessels, First Lieutenant D. G. Raney was in charge of the Marines on this vessel. This vessel made a brave but quixotic attack against virtually the entire Union Fleet. After being rammed by the *Monongahela* and then by the *Lackawanna,* both of which suffered more damage than they inflicted, she was struck a glancing blow by the *Hartford.* After being pounded unmercifully at close range by fifteen-inch and eleven-inch projectiles, she surrendered, after her steering gear had been shot away and she had become unmanageable. The Marines were assigned a gun division and they inflicted considerable damage on their opponents. Little real damage was done to this vessel and she was soon ready for duty with the Union Fleet. The casualties on the *Tennessee* were only two killed and eight wounded. Among the wounded were the Admiral and two Marines.

Morgan. Sergeant J. M. Bennett and twenty-eight other Marines participated in the battle of Mobile Bay on this gunboat, which was sunk in this fight.

Gaines. When this gunboat participated in the battle of Mobile Bay, First Lieutenant J. R. T. Fendall was in charge of the Marines. As the result of being struck by an eleven-inch projectile, this vessel took refuge under the guns of Fort Morgan. As she was sinking her crew took to the boats. Just after the boats had cleared the ship she lurched and went down with her flag flying from the main-top mast above the water, after she had touched bottom. Her crew after rowing all night reached Mobile and from here were sent to the defenses on the James River.

Arctic. This vessel is described as a floating battery. She was used as a receiving ship at the Wilmington naval station. A Marine detachment consisting of First Lieutenant R. H. Henderson, Second Lieutenant H. M. Doak, two Sergeants, three Corporals and thirty-three Privates were stationed on this vessel. Later this detachment was transferred to the *Raleigh.*

Raleigh. The Marines from the *Arctic* were transferred to this vessel. On the night of May 6, 1864, the *Raleigh,* the *Yadkin,* and the *Equator,* the latter two gunboats, steamed out of New Inlet, Cape Fear River, convoying several blockade runners. The *Raleigh* made straight for the U. S. S. *Britannia,* which made for shallow water and sent up the signal for an alarm. The *Raleigh* then made for the *Nansemond* which outdistanced her. Near daylight the *Raleigh* sighted the *Howquah* and made for but was outdistanced by this vessel in a running fight. At about daylight the Federal Fleet arrived and the *Raleigh* and her consorts retreated up the river. The ill-fated luck of the C. S. Navy overtook the *Raleigh.* She ran aground as she was crossing the bar and broke her back.

Baltic. This vessel was a small gunboat fitted up as a ram. Sergeant Martin Moore, two Corporals, and twenty-eight Privates constituted the Marine detachment on this vessel, which was used in the defense of Mobile Bay.

Georgia. This vessel was a swift powerful cruiser, purchased in England. Sergeant James A. Park was in charge of the ten Marines which constituted the detachment on this vessel. The *Georgia's* career was a brief one. She

captured only nine vessels. Because of insufficient sail power she was taken to Liverpool on May 2, 1864, dismantled and offered for sale.

McRae. Sergeant J. W. Seymour was in charge of the fourteen Marines on this gunboat. This vessel was sunk in the defense of New Orleans, on April 28, 1862.

North Carolina. Sergeant John Haggerty was in charge of the twenty Marines on this iron-clad. This vessel sprang a leak while at anchor in Cape Fear River and sank in September, 1864.

Stonewall. Sergeant J. M. Prior was in charge of the Marines on board this iron-clad ram. This vessel was surrendered to the Captain General of Cuba in 1865, on account of the wages due her crew. The Spanish officials later turned this vessel over to the U. S. Government.

James River Squadron. This squadron was the most powerful one ever assembled by the Confederate Government. The three iron-clads belonging to this squadron had Marine detachments. The Marines on the *Virginia* (No. 2) were in charge of First Lieutenant T. P. Gwynn, those on the *Richmond* under First Lieutenant S. M. Roberts, and those on the *Fredericksburg* under Second Lieutenant E. T. Eggleston. The other vessels in this squadron were the gunboats *Drewry, Beaufort, Nansemond, Hampton,* torpedo-boats *Hornet, Scorpion,* and the tugboat *Torpedo.* On the night of January 23, 1865, this squadron proceeded down the James River to give combat to the Federal Fleet. During the night the *Virginia, Richmond, Drewry,* and the *Scorpion* ran aground near the Federal Fort Parson. When day broke the fort opened fire on them. The *Drewry* was blown up by a mortar shell exploding in her magazine and the *Scorpion* was abandoned on account of injuries received by the blowing up of the *Drewry.* The U. S. S. monitor *Onondaga* came up and joined in with the fort in firing on the *Virginia* and the *Richmond* while they were aground. These two vessels finally floated themselves and the squadron proceeded down the river. Upon being fired upon again they retreated up the river. The James River Squadron was blown up to prevent being captured when Richmond was evacuated.

Fort Johnson and Battery Simpkins. On July 27, 1864, the 127th New York, the 52d Pennsylvania, and a detachment of sixty men from the Rhode Island 3d Artillery, under the command of Colonel Gurney, embarked in boats from Morris Island (near Charleston) and attacked Fort Johnson and Battery Simpkins. The Union assault was unsuccessful, losing 137 men and six officers. The Confederate force was a contingent of Marines and Sailors from Commodore Tucker's squadron. According to the report of Brig. Gen. William B. Taliafero, the Commanding General for this district, another company of Marines participated in their repulse but he did not give the names of the Marine officers.

Port Royal. When Port Royal was menaced, Commodore Josiah Tatnall, with his little squadron, consisting of the iron-clad *Savannah, Sampson, Resolute,* and *Lady Davis* (the last three gunboats) moved to the vicinity of Port Royal to oppose the Federal Fleet.

The following is an extract from the Savannah Republican relating to the Marines:

"We reached Skull Creek in safety about eleven o'clock and went alongside of Seabrook's Landing, when the flag-officer instantly dispatched Capt. G. Holmes, of Savannah, over to the other side of the island to render assistance to the fatigued garrison of the battery—Capt. Page, at the request of the flag-officer superintending the debarkation.

"They were followed an hour afterwards by Flag-Officer Tatnall, Capt. Page, and Midshipman Barron Carter, of Augusta—the flag-officer's aid—who proceeded with all the available seamen of the gun vessels *Savannah* and *Sampson*, with some few marines of the latter vessel, under the command of Lieutenant Phillip Porcher, of South Carolina, ordered to make speed with all our naval ammunition to the battery, which at this time appeared to be hard pressed."

Fort Fisher. Fort Fisher was under the command of Colonel Lamb, C. S. Army. A contingent of Marines and Sailors were assigned a portion of the batteries of this fort. The naval command was known as Battery Buchanan. The Marine Corps contingent was under Lieutenant J. D. B. Roberts.

There was also a company of Marines attached to the nearby Naval Station, near Wilmington under the command of Captain Van Benthuysen. His Lieutenants were First Lieutenant J. C. Campbell and Second Lieutenant Henry M. Doak.

In the attack on Fort Fisher, December 24 and 25, 1864, and January 5, 1865, this company of Marines under Captain Van Benthuysen participated. The following is an extract from an article published by Mr. William R. Mayo, Collector of the Port at Norfolk in 1887, who participated in this engagement:

"The Federal Fleet, after battering down or disabling all the guns or nearly all the guns on the sea face of Fort Fisher, landed a large force of sailors and marines on the beach in front of the sea face of the fort and made an assault with great loss. . . .

"Among those of the garrison of Battery Buchanan who were actively engaged in repelling the combined attack of the Federal Army and Navy, were the Confederate marines under Captain Van Benthuysen of the C. S. Marine Corps, who had with him about fifty men. How they worked that night with the rest of the little garrison, falling back from gun chamber to gun chamber can be best told by Colonel Lamb."

Drewry's Bluff. During the Peninsular Campaign the Confederates constructed at Drewry's Bluff a fort as a part of the defenses of Richmond on the James River. This fort was located some seven or eight miles below Richmond. Conditions here were favorable for the placing of obstructions in the river to bar the passage of vessels. The fort was under the command of Commander E. Farrand, C. S. N., and its garrison consisted of detachments of Soldiers, Sailors, and Marines. The Marine contingent was under the command of Captain J. D. Simms and the Army under Captain A. C. Drewry.

The Federal Fleet, after passing with so little difficulty the defenses lower down the river, were confident that they could force a passage of the James River to Richmond without encountering any real resistance.

At 7:30 A.M., May 15, 1862, the three Federal iron-clads, the *Monitor,*

Naugatock, and *Galena,* and the gunboats *Aroostook,* and *Port Royal,* endeavored to force their way past this fort. After an engagement lasting for nearly four hours, in which the *Galena* came near sinking and the *Naugatock* was badly injured, this squadron withdrew down the river. One of the features of this fight was the deadly work of two battalions of riflemen stationed along the banks of the river. One battalion were Marines under Captain Simms and the other one consisted of sailors under the command of Lieutenant J. T. Wood, C. S. N.

The following is Captain Simms' report of this affair:

"On the 15th inst. the enemy's gunboats having made their appearance near the battery at Drewry's Bluff, I stationed my command on the bluffs some two hundred yards from them, to act as sharpshooters. We immediately opened a sharp fire upon them, killing three of the crew of the *Galena* certainly, and no doubt many more. The fire of the enemy was materially silenced at intervals by the fire of our troops. It gives me much pleasure to call your attention to the coolness of the officers and men under the severe fire of the enemy. The companies composing my battalion were commanded by Capts. A. C. Van Benthuysen and J. E. Meire."

So close did this squadron have to come to the banks of the river that Lieutenant Woods called out to an officer in the pilot house of the *Monitor,* as they were retreating:

"Tell Captain Jeffers that this is not the way to Richmond."

On September 16, 1862, the officers and men of this little garrison received a vote of thanks from the Confederate States Congress.

After the repulse of the Federal Squadron on May 15, 1862, several other forts were constructed on the James River and they were manned by naval contingents. The fort at Drewry's Bluff was turned over to the Marine Corps, and Major (Lieutenant Colonel) George H. Terret of the C. S. Marine Corps was given command.

The batteries at this fort on December 30, 1864, consisted of:

6 10-inch Columbiards
2 8-inch Columbiards
1 7-inch Brooke Rifle
2 6-inch Siege Guns
3 12-pounder Howitzers
3 32-pounder Smooth-bores

The garrison at this time consisted of a battalion of Marines and two companies of artillerymen, numbering 230 men, under Major Francis W. Smith, C. S. Army.

The following was the organization of the Marine Battalion:

Company A.

Capt. G. Holmes
1st Lieut. E. H. Cameron
1st Lieut. N. E. Venable
2d Lieut. A. S. Berry
2d Lieut. H. H. McCune
2d Lieut. E. T. Eggleston
2d Lieut. E. R. Smith
One 1st Sergeant
6 Sergeants
3 Corporals
1 Musician
71 Privates

Company B.

Capt. J. D. Simms	One 1st Sergeant of Ordnance
Capt. A. C. Van Benthuysen	One 1st Sergeant
1st Lieut. David Bradford	4 Sergeants
2d Lieut. S. M. Roberts	6 Corporals
2d Lieut. Lowery B. Stephenson	2 Musicians
2nd Lieut. Edward Crenshaw	95 Privates

Company C.

Capt. R. D. Thom	2d Lieut. J. DuB. Roberts
Capt. T. S. Wilson	2d Lieut. John A. Pearson
1st Lieut. R. H. Henderson	One 1st Sergeant
1st Lieut. T. P. Gwynn	3 Sergeants
1st Lieut. James Thruston	6 Corporals
2d Lieut. J. C. Murdock	4 Musicians
2d Lieut. Ruffin Thompson	74 Privates

Company E.

(October 1864)

Capt. Joseph R. E. Tatnall	3 Corporals
1 First Sergeant	1 Musician
1 Sergeant	46 Privates

Sailor's Creek. The Marine Battalion at Drewry's Bluff was to play its part in the grand finale of the dying Confederate Government. On April 2, 1865, the forts on the James River near Richmond were evacuated and a naval brigade was formed under command of Commander John R. Tucker, consisting of about 300 sailors from the various forts near Richmond and the Marine Battalion at Drewry's Bluff. They were attached to General Custis Lee's division of General Ewell's Corps. This naval contingent formed the rear guard of Ewell's Corps on their retreat from Richmond. At Sailor's Creek the Confederates were finally brought to bay. Here on April 6, 1865, Ewell and virtually his entire Corps were captured. When Ewell passed the word that he had surrendered the contingent of Marines and Sailors were the only ones whose lines had not been penetrated that day by Federal troops and they were still holding the position that had been assigned them that morning. This naval contingent was the last of Ewell's troops to surrender.

SECRETARY OF THE NAVY AND COMMANDANT'S REPORTS

The following are extracts:

Secretary's Report for November 30, 1863:

"The naval command at Drewry's Bluff, composed of Seamen and Marines, is in a high state of efficiency; and the river obstructions are believed to be sufficient in connection with the shore and submarine batteries to prevent the passage of the enemy's ships.

"The difficulty of obtaining recruits has kept the Corps below its authorized number. It has, however, furnished the necessary guards for ships and stations and maintained, with great benefit to officers and men, a camp of instruction. Men and officers are well instructed, and excellent discipline is preserved."

The following is from the Commandant's report for November 7, 1863:

"The officers and men are well instructed and an excellent state of discipline is maintained in the Corps.

"The condition of the Corps as regards clothing and subsistence is better than could be expected at a time of so great scarcity.

"The Corps has been promptly paid at the regular fixed time except in cases of detachment afloat, where the payments have been made in the usual manner."

The following is from the Secretary's report for April 30, 1864:

"Lieutenant Colonel Terrett, of the Marine Corps, with a body of Marines, commands at Drewry's Bluff. . . ."

". . . Since my last report the Marines have displayed their accustomed discipline and gallantry under fire at Drewry's Bluff, and also in the land and naval engagements on the 5th and 6th of August last in the Bay of Mobile.

"The organization of the Corps is that of a regiment of infantry, to which in pay and allowances it should be assimilated: and as the monthly pay and allowances of its non-commissioned officers, musicians, and privates is now $3 less than the same grades in the infantry, an increase to this extent is recommended."

The Commandant in his report for April 28, 1864, has the following to say:

"The Marines are on duty with the naval forces at Mobile, Savannah, Charleston, Richmond, and at Drewry's Bluff, on the James River. . . ."

"The discipline and efficiency of the Corps are such as to reflect much credit upon the Captains and subordinate officers. . . ."

The following is from the Secretary's report for November 5, 1864:

"The demand for seamen to man the vessels of the Navy has compelled the withdrawal of the seamen heretofore stationed at Drewry's Bluff and the transfer of that post to the Marine Corps.

"The condition of the Marine Corps, its officers, material, and discipline, is creditable to the country. While it furnished the necessary guards for ships and stations, detachments from it have been frequently employed in special and hazardous services and their conduct has been uniformly distinguished for discipline, steadiness and courage.

"On February 2, 1864, a naval force consisting of thirty-three officers and 220 men, embracing a company of Marines under Capt. T. S. Wilson, under immediate command of Commander John Taylor Woods, boarded and captured the Federal gunboat *Underwriter* immediately under the enemy's batteries at New Berne, N. C. The fire of the shore batteries prevented her being brought off and she was destroyed."

The following is from the Commandant's report, dated October 30, 1864:

"By this return it will be seen that the aggregate strength of the Corps amounts to 539. Of this number, two captains, three lieutenants, and sixty-two enlisted men are prisoners at war in the hands of the enemy.

"Not included in this return are thirty-two recruits received at the naval station, Charleston, from the conscript camp near Raleigh, N. C.

"The Marine Corps is distributed at the following naval stations: Mobile, Savannah, Charleston, Wilmington, and at Drewry's Bluff: also on board the three iron-clad steamers in the James River, and as guards at the Richmond Navy Yard. Marine Guards have been assigned to the armed steamers *Tallahassee* and *Chickamauga* destined to operate against the enemy's commerce on the sea.

"Since my last report the Marines have been under the enemy's fire at Drewry's Bluff and on the James River: also in the land and naval engagements near Mobile, on the 5th and 6th of August last. A Marine guard, under the command of Lieutenant

Crenshaw, was attached to the *Tallahassee* during the last cruise when so much damage was inflicted upon the enemy's shipping at sea.

"Upon all occasions when the marines have been called upon for active service they have displayed the promptness and efficiency of well disciplined soldiers."

Pay. The following was the monthly rate of pay in effect on June 30, 1864.

Colonel Commandant	$195.00
Lieutenant Colonel	170.00
Major	150.00
Paymaster, Quartermaster, and Adjutant, each	162.00
Captain	130.00
First Lieutenant	90.00
Second Lieutenant	80.00
Sergeant, Major, and Quartermaster Sergeant, each	21.00
First Sergeant	24.00
Sergeant	21.00
Corporal	17.00
Drummer and Fifer, each	16.00
Private	15.00

In addition to the above the Commandant, the Field and Staff Officers were allowed $24.00 per month, extra, for forage for three horses and $9.00 per month for "Additional Service Pay."

Remarks. This paper gives only a scant index of the services of the Confederate States Marine Corps. Due to their inadequacy in numbers and the breaking up of the Corps into small detachments they doubtless did their "bit" in many an action which has not been recorded. There is nothing in the records derogatory to their professional merits, their gallantry, or their fidelity. They deserved well of their country and they appear to have been the peers of those who had worked and fought where reputations could be made.

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THE CRUISE OF THE U.S.S. ALLIANCE IN THE ARCTIC—1881

By Colonel H. C. Reisenger, U.S.M.C.

IT WAS a time when every daily carried headlines of General Nobile's rescue. General Nobile had taken the *Italia* to the North Pole and had been forced down on his return trip by the weight of ice on the great dirigible and his fate was then in question. There followed a rush of daring, self-sacrificing adventurers of the sea and air and soon there leaked out of the far north a series of tales that challenged the imagination in their devotion and heroism.

"Spitzbergen!" exclaimed General Elliott. "Green Harbor! King's Bay! Northeast Land! All names in these days familiar to every one on the street! There's hardly a paper that doesn't carry a headline about them, and every spring, it seems the world is listening to radio reports from some venturesome scientific party in the Arctic or Antarctic. The radio, the airplane and dirigible, what they have done to polar research! Look here! Think of Sir John Franklin, Kane, Hayes, DeLong, Greely and Peary, adventurers who dared the Arctic on foot with a small ship as their base; and but one, Peary, to win through to his goal after months of hardship—without news of the outside world, living on his strength and faith in a frozen country. The later day explorers, using the machines of an inventive age, have succeeded where all but one of the early explorers failed, but even in failure they set a high mark upon the courage of man. They endured the monotony of the arctic winter, unbelievably cold, in semi-darkness and in imminent danger of death. Think of living for months in such an eerie world of utter lonesomeness! 'I have seen no expression on the face of nature so filled with terror as the silence of the Arctic night'—that's what someone, Hayes, I think, wrote. A never-to-be-forgotten sentence summing up the horrors endured by these men. Personally, I have no pleasant recollections of my cruise about Spitzbergen. It is a barren, cold, desolate land; the sea thereabout is filled with ice, the glare on sunny days terrific, and the foggy ones filled with dangerous uncertainty; continuous daylight was wearing on the nerves and strength, and the ship was unsuited for the duty. I would not care to winter in the Arctic!

"In 1879 Lieutenant DeLong of the Navy, in command of the *Jeannette*, made, as I recollect it, the first effort to discover the North Pole. Before DeLong the efforts of discoverers had been directed toward the supposedly open Polar Sea and the Northwest Passage. The adventures that beset this party which entered the Arctic through the Bering Strait and was caught in the ice to the north of Bennett Island are now matters of history. Look here! Can you imagine being held fast in the grip of the ice, living day by day through the groaning of your ship in the expectation of its destruc-

tion and faced with the prospect of a desperate fight for your life against the forces of nature? That is what DeLong was up against—surrounded by desolation and ahead of him and his party only months of monotony; such an existence would be enough these days to drive the unfortunates insane. The *Jeannette* was finally crushed about the middle of June, 1881. At this time the *U.S.S. Alliance* on which ship I commanded the Marine Guard, sailed out of Norfolk for a cruise between Greenland and Spitzbergen in an effort to ascertain the fate of the *Jeannette*. The revenue cutter *Corwin* had made a cruise the year before through Bering Strait in search of news of DeLong's expedition and although they reached a point near Wrangel Island obtained no word of them. During the period of our cruise in the north it subsequently developed that DeLong and his party were struggling to the southwest over the ice dragging three whale boats until they discovered Bennett Island, where they took to the sea. After a voyage filled with hardships and encountering a gale that separated the boats, DeLong with his party landed about the middle of September at the Lena Delta. Melville, who entered the Lena ahead of DeLong in one of the boats and reached aid, subsequently located DeLong's party but too late to effect their rescue. Melville did find the only two survivors of the party in a little Russian town to the south of the Lena River. The third boat with all on board was never heard from, although extensive search was conducted.

"The exceptionally southern position of the ice barrier made it impossible for us to work our way farther north than approximately the eightieth parallel, and we failed in the major objective of the cruise. We encountered a number of Norwegian walrus hunters while in these waters who were unable that year, because of the ice, to reach farther north than the neighborhood of Fair Haven, although they could usually work in Hinlopen Straits and even north of that. It was a season of such light southerly airs that the pack was not driven north as is usually the case.

"While we searched for DeLong and sent broadcast descriptions of the *Jeannette* to all fishing vessels, he was, as a matter of fact, about 1,800 miles to our eastward. The world was in absolute ignorance as to his whereabouts, but those were the days before the radio. Today, in the light of the rescue of the survivors of the *Italia* disaster, it is not assuming too much to say that had DeLong possessed radio equipment, the loss of his life and of those others of his party could very well have been avoided. It seems certain that the *Corwin's* efforts at relief would have been more successful in these times as she must have been within less than a thousand miles of the ice-bound *Jeannette*.

"In the spring of 1881 the *Alliance* went into dry dock at Norfolk in preparation for this cruise. The bow of the ship was sheathed with live oak and a heavy iron guard was bolted onto the stem for protection against floating ice, and we got a thorough overhaul. We were also stocked with extra supplies and heavy winter clothing. We sailed from Hampton Roads under command of Captain Wadleigh about the middle of June. As I recollect it, our instructions were to cruise between Greenland and Spitzbergen

as far north as possible without getting nipped in the ice. We were intended not only as a search party for the *Jeannette* but to make such observations as would be beneficial to the navigator and of general scientific interest. It is a strange coincidence that almost on the day we left Hampton Roads the *Jeannette,* after being held fast in the ice for many months, was finally crushed, the pressure being so terrific that her sides buckled and ice cakes of metallic hardness were driven into her engine room.

"The old *Alliance* was a steamer of the third rate, and bark-rigged. She was no speed boat, either as a steamer or sailer, and as we depended greatly upon her sails where the wind was favorable, our cruises were slow and monotonous affairs compared with travel today.

"After a stop at St. Johns, Newfoundland, where we coaled and laid in supplies, we sailed for Reikjavik, Iceland. On our way up we encountered considerable heavy foggy weather and occasional icebergs. We arrived at Reikjavik after a trip of eleven or twelve days. We had some time there and all availed ourselves of shore leave. The town was timber and stone built but while there were no buildings at that time of any importance it was a snug, quaint little place. The people, to a great extent, wore the native costume with which all readers of the *National Geographic* are now thoroughly familiar. The colors of this clothing were strikingly brilliant and the embroidery of the women's costumes very often remarkable for its beauty. Here the Captain held several conferences with the Governor, and through his aid we sent out circulars to all vessels, giving a full description of the *Jeannette* in Icelandic.

"About the middle of July we sailed for Hammerfest, Norway, the northern limit of the Gulf Stream and the most northern city in Europe. Hammerfest was a very interesting little town. The harbor is protected by a mountainous island and while the actual temperature is remarkably warm for its latitude—due to the influence of the Gulf Stream—we could see inland mountains rising to considerable height, snow-covered and marked by glaciers. This town enjoyed a brief busy season, from the middle of May to the first of August when, by the way, the sun did not set. It was then that the fishing fleets set out for their cruises into the waters around Spitzbergen and to the north for cod and walrus. It was here that we first saw that type of Norwegian fisherman with whom we were later to become quite familiar. They were huge, tall, broad-shouldered, yellow-haired, blue-eyed Vikings to whom the dangers of the sea were of no more importance than the dangers of city life are to the average dweller in Washington. These men, through a short season of the summer, by extreme exertion, personal courage and stamina, eked out a living. I was told that where the results of the cruise brought a fisherman the equivalent of $60 gold, he could last through the rest of the year with comfort. We had found things cheap in Hammerfest and, of course, a dollar in 1881 went a long way, but it must have taken careful marketing to pull through on that small sum.

"In the latter part of July we left Hammerfest and sighted Bear Island about the second day out. We found the island completely surrounded by

impenetrable ice and were unable to get closer than about three miles. While there we spoke a schooner whose skipper told us he had spent a week trying to get ashore.

"After leaving Bear Island we headed north for Spitzbergen and entered Bell Sound. Being now well within the Arctic Circle we encountered a great deal of loose ice. Generally, in our cruising in this vicinity we were working our way through floes, but they were so well broken up as not to retard our progress until we reached the vicinity of the barrier ice farther to the north. As we approached Spitzbergen it appeared to be a most inhospitable region. The west side is very mountainous and the hills were bare of vegetation; brown, with rock outcroppings and partly covered by perpetual snow. In some of the deep valleys glaciers worked slowly to the sea, and great bergs would separate from the parent mass, upheaving a small tidal wave as they settled. During our sojourn in its harbors, the temperature rarely rose above 40° but at this season we were much surprised to find many plants that managed to live in so cold a climate and to wonder at the means of sustenance that provided a living for the reindeer and foxes that we found when ashore hunting. The low valleys were carpeted with moss—usually a small stream from the melted snow ran down the center—and through this mat of moss, the flowers thrust their way. I remember that dandelion and a little pink star-shaped flower were most in evidence during August.

"From Bell Sound we entered Ice Fiord and made our way slowly to Green Harbor and anchored. Here we found a number of Norwegian vessels. In this neighborhood I first saw the Norwegian method of walrus hunting.

"In the eighties walrus oil was rated as a very high-priced commodity, and the fishermen took big changes in the pursuit and capture of the bull walrus. The schooners used in walrus hunting were very staunchly built but quite small; however, they pushed their way into the ice-filled harbors of Spitzbergen and to the north of the islands, ever in danger of being nipped in the ice. The fishermen sought the bulls, not only because of their greater size (some were said to reach the weight of 2,000 pounds), but the oil obtained from them was of a superior quality to that obtained from the cows. The hunting was done in comparatively shoal water. They used in the actual attack of the walrus a small boat of light draft which could be easily handled by two rowers seated amidship. These small boats were of a type peculiar to these fishermen, their sides were not curved outward but tumbled home near the gunwale in order to facilitate the hauling inboard of large fish. The harpooner, always a man of great physical strength and usually one of the schooner's mates, stood in the bow of the boat on a little platform. When the harpoon struck home the bull walrus would immediately sound but not to a depth ever greater than sixteen fathoms. So regular were its habits in this regard that the fishermen rarely attached to the harpoon a line of greater length. When the bull came to the surface he was invariably fighting mad and very dangerous. As soon as he spotted the cause of his distress he would charge the boat and endeavor to destroy it

with his tusks. The harpooner, after launching his weapon, would arm himself with a thirty-foot lance at the end of which was a four-foot spear, exceedingly sharp, and as the bull rushed the harpooner would meet him with this lance, striking at his heart and hold him off, an operation requiring not only tremendous strength but great dexterity. The oarsmen did what they could to assist him. There would be a desperate battle until the lance finally struck a vital organ and the walrus surrendered. The tusks of a walrus always remind me of a mandarin's mustache. Now, here is a curious thing. The young walrus bulls would be attracted by the commotion incident to the capture of the larger bull and they would pop up out of the water and hook their baby tusks over the gunwales of the boat and stare around at the human beings with mild curiosity. The Norwegians, who knew the danger of roughly handling these young bulls, would quietly lift their tusks free of the gunwale and push them off from the boat. To strike one of them suddenly would have caused them to duck and result in upsetting the boat. This performance of the young walrus, caused entirely by his curiosity, while very comical if you knew how to dispose of him might, on the other hand, be quite disastrous for an upset in the waters around Spitzbergen could well have serious consequences.

"Green Harbor, like other harbors around Spitzbergen that we entered, was of very deep water, well sheltered by high hills, and anchorage close to the shore was possible. I had several opportunities for shooting and considerable success—fox, reindeer, ptarmigan, Arctic plover, eider ducks, and finally a polar bear.

"I came across a number of eider ducks' nests and the quality of the down was truly remarkable. These ducks built their nests in a hole about the size of a silk hat and filled it full of down. I found that I could pick up the entire contents of the nest and compress it carefully in my two hands and when released, you could distinctly hear it crackle as it returned to its previous condition. The elasticity and durability of the down was striking.

"In most of our trips ashore we saw any quantity of white and blue fox—I could have killed fifty, I suppose with no difficulty—but at that season of the year their pelts were not good and there was no object in killing them. A curious habit of these foxes was to follow us while hunting, barking almost continuously. One day we were followed by a black fox, whose fur even in those days was exceedingly valuable, and from a distance of about three hundred yards he yapped at us until our presence was betrayed to any game that we were attempting to stalk. So, finally, to drive him away I fired a shot from the Springfield which must have struck just in front of him and spattered him with gravel for he turned a complete somersault and hit the ground running. I never saw an animal travel faster than he did.

"Beyond the polar bear, I think the prize trophy that fell to my gun was a great gull—it had a scientific name I've forgotten—with a nine-foot spread of wing.

"When we left Green Harbor we swung to the west and northwest along Spitzbergen to South Gat. While in Bjoren Bay we sighted our first polar

bear. There was immediate excitement amongst the hunters of the ship, myself in particular. Wilkinson, Hall and I were put ashore in a boat with some others whose names I have now forgotten to make a try for this animal. The bear did not seem to be alarmed by our cutter bearing down upon him but stood his ground until we were well in to the shore. Then it made off leisurely up the beach and Wilkinson and one or two others opened fire. Some of their shots appeared to take effect, but not seriously, for the bear would stop and snap at the point of contact of the bullet and then continue on its way. When the cutter grounded I jumped out and ran up the hillock of rubble—which is piled up each winter by ice pressure—and after reaching this elevation I could get a broadside view of the animal and got in three shots which proved fatal. As polar bears were then quite a curiosity we had this skin made into a rug and later it was presented by the wardroom mess to Mrs. Hunt, the wife of the Secretary of the Navy at that time. The hunting in and around South Gat was by far the best that we had on this trip and a number of us were able to add to the collection made by the ship of the birds and animals that inhabit that country.

"About the middle of August we left South Gat and ranged along the ice-pack as far north as we could go without endangering the vessel; the barrier, however, proved to be so dense that we never succeeded in getting north of the 80° parallel. For days we would steam or sail along this expanse of ice in a biting cold wind, the lookout ever on the watch for wreckage or flotsam that might give some clue as to the whereabouts of the *Jeannette*. About the middle of this month we began to get warnings of the coming of winter. The weather turned stormy with frequent snow-squalls and there were many foggy days of bad visibility which did not make cruising safe or comfortable. Seals were always in evidence near the ice-barrier and on the floe ice outside the harbors, but from all accounts they must have gone the way of the sperm whale—wiped out by over-hunting.

"In the latter part of August we were back in Green Harbor and there I went ashore on a hunting trip accompanied by Mr. Hall, Assistant Engineer, Midshipman Wilkinson and an ordinary seaman. We also took with us the mate of a Norwegian fishing schooner who spoke some English. We succeeded in bagging eleven reindeer which we brought back to the ship. Their meat was a welcome addition to our diet. For his services we gave the Norwegian $5.00 in gold and a pound of plug tobacco, and he was so overjoyed that he forgot his little English and roared his delight in his native tongue and it was with difficulty that I kept him from embracing me.

"At this season the majority of the reindeer herds kept to the highlands in order to avoid the particularly ferocious mosquito which then was present in Spitzbergen. These mosquitoes would attack the reindeer around the eyes and, of course, such a thing as a human being was a welcome change of diet for them. However, some of the reindeer would wander, while grazing, down into the valleys and these we could stalk and kill. Our Norwegian mate thought nothing of shouldering a two hundred pound reindeer and carrying it down to our camp which was established on the shore. We

found by the way, stranded on the beach, a great cyprus log which must have been five feet in diameter. Where it could have come from other than from some swamp in Central or South America, I do not know. We cut into this log about half-way through and built our fire there and snuggled as close as we could for the nights were exceedingly cold. From this salt-impregnated cyprus the flames were the most beautiful I have ever seen, ranging from the faintest green to the deepest purple.

"While in Green Harbor about the end of that month part of the crew tried their hand at coal mining. The coal mine, however, was situated about forty feet up on an overhanging bluff and after very dangerous work during the course of which the party came close to destruction, they succeeded in getting out about two tons. As an executive officer, Clifford West, who had charge of the party, left nothing to be desired, but as a coal miner he was not an unqualified success.

"This Spitzbergen coal we found to be of fine quality, and I understand today the coal in this region—Ice Fiord—has been developed until now the annual output is to a great extent supplying Scandinavia and reducing their old import of British coal.

"During July and August the sun had circled above us twenty-four hours a day. I found it extremely difficult to get any sleep for we had no regular separation of working and resting hours. By that, I mean we did not recognize the normal night hours and enforce quiet aboard ship during that period. So no matter what time of the twenty-four hours it was, someone always was moving about making some sort of a noise; also, it is hard to accustom oneself to sleeping in the broad daylight. I had an old silk hat that I used to stuff in the port of my cabin and pull the curtain over in the hope of cutting out the daylight, but it didn't work very well. This orb, plainly visible during the twenty-four hours, gradually dipped towards the horizon and on August 29th, at midnight, dropped out of sight for a moment. We all of us grew unutterably weary of watching the antics of the sun and longed for a return to a latitude in which it behaved in some normal manner. However, during the time that the sun was flirting with the edge of the world we were treated to a remarkable display of color along the horizon which marked the progress of the sun. There would be great streamers of gold, violet and purple, that would shoot up towards the zenith, making a very striking picture.

"As we had orders to clear for home by September 25th, we headed down towards Hammerfest the latter part of that month, and it was on this downward trip, while cruising along the ice barrier off of Greenland, that we came very close to being nipped in the ice.

"It was extremely cold, with no wind to speak of and there being considerable fog we were feeling our way along the barrier pack. Suddenly a squall hit us and set the rigging to humming, but to the surprise of all on board no sea sprang up—the water not more than rippling. We had with us two professional Norwegian ice pilots and they immediately went into conference with Captain Wadleigh and Clifford West, the executive. Some-

how, all of us on board sensed danger and in a short time the ship's company grew so tense awaiting the result of this conference that I noticed that beyond the wind whistling in the rigging above us and the sounds of the coal heavers in the boiler-room, there was absolute silence aboard; as the fog still hung densely around us, the scene and the accompanying stillness produced a very eerie feeling. Finally, the ice pilots notified the Captain that we were, in their opinion, in an ice pocket; that is, surrounded by ice. We followed the ice in a complete circle—actually boxing the compass—before increasing wind finally lifted the fog. We were, in fact, all but pocketed; at first sight we seemed completely surrounded by ice. Then the lookout sighted, about ten miles away, a lead out. It looked for all the world like a black ribbon winding across the great expanse of blue white. The course was immediately laid for this opening and all steam that the *Alliance* could stand was jammed on. During the next hour while the little ship quivered under the drive of her engines, most of the ship's company intently watched that narrow road to release, for to fail to get through before it closed meant wintering in the Arctic and an excellent chance of starvation, for the *Alliance* carried a full crew and was not stocked with supplies sufficient for any such experience. I remember quietly going about my own preparations to abandon ship if she got crushed. It was my intention to endeavor to lead the guard back over the 150 miles of ice to Green Harbor, for there was a cabin, a few shacks connected with a coal mine, and the reindeer in that neighborhood could, I believed, be still relied upon for food supplies. After about an hour of suspense we reached the lead out of the ice pack. When we got close it became apparent that there were three distinct avenues of escape and under the guidance of the ice pilots the center one was selected. We eased our way down this river and as we neared the outer end we could see two great masses of ice—bergs that loomed forty-five feet above the surface of the pack—gradually closing upon each other. We passed between the two with not more than comfortable clearance and shortly after gaining open water we could see them bumping together, closing the only existing avenue of escape. With the background of the experiences of those who had spent a winter in the Arctic, even when they were prepared for it, we of the *Alliance* were duly thankful for our good luck in winning clear.

"In these days it seems as though every sky adventurer who seeks the mysteries that surround the North Pole bases his operations at Spitzbergen. Byrd, Amundsen and Nobile all went to King's Bay each taking with him a considerable force. They set up repair shops, built hangars, brought in great quantities of petrol, spare parts and supplies and reported health of their units and progress of their work by radio. In the evenings after a day of toil they could sit around and get news from the homeland by the same means. The stillness of that barren land was shattered by the roar of motors and strange objects flew over mountains and ice packs that heretofore had known little else but desolation. The first airplane must have been a distinct shock to the Eskimo and given the foxes that forever yapped at us in resentment of our intrusion upon their solitude something real about which to reg-

ister their protest. It seems strange to me, who still bear the recollection of that country forty-seven years ago, that it should have become, as it must, quite a populous place. In 1881, except for fisherman's hut, the primitive coal mine in Green Harbor, and the occasional grave of some whaler or fisherman, there was nothing in Spitzbergen that could be called the mark of the hand of man."

The General paused and lighted his pipe; the story was ended. The night was blisteringly hot and I suddenly came back from the land of ice and cooling breezes to a realization that I was in Washington, and the month, July.

"Spitzbergen is a fine locale for a story on a night like this, General," I remarked.

The General growled, "The tropics are more to my liking. The Arctic is a cold, inhospitable place at best, and the elements are set against the intrusion of man. I am well pleased never to have seen it since the *Alliance* cruise."

THE TACTICAL HANDLING OF FIELD ARTILLERY IN THE SPANISH–AMERICAN WAR

By G. H. Osterhout, Jr., Major, U. S. Marine Corps

(Numerals in brackets indicate references listed on Page 193.)

TACTICS is defined as: The "art of handling or using troops or ships in battle or in the presence of the enemy" (1). In this instance the troops to be considered are those comprising Field Artillery.

In the year 1898 artillery in the United States Army was divided into two groups: Light Artillery and Heavy Artillery. To the former belonged the batteries which manœuvered with troops in the field; while the latter consisted of those batteries serving as siege and position guns, and supply trains (3-a). At present, however, Field Artillery is defined as the artillery accompanying an army in the field, including everything from trench artillery to all types of wheeled or caterpillar artillery heavier than the medium artillery (2).

The Light Artillery in 1898 included horse batteries, in which the cannoneers were mounted on horseback; field batteries, in which the cannoneers marched by the side of their pieces or were mounted on the ammunition chests and off horses; and mountain batteries, in which the pieces could be carried on pack animals (3-a). Then there were, also, units called according to the model of their guns, horse, field, mountain, Hotchkiss, Gatling, Gardner, etc., batteries.

Field batteries used either the 3.2 inch or the 3.6 inch gun; horse batteries, the 3.2 inch gun. Both types were breech loading. The Hotchkiss revolving cannon had five barrels, and was of two types called "light" and "heavy", both 1.45 inch in calibre, but the latter type had heavier parts and a longer barrel. The Gatling gun had a number of revolving barrels—1 inch, .45 inch, and .30 inch calibres. In war a battery was to have six guns and nine caissons, with a personnel of four officers and one hundred and forty men (3-c).

The light artillery of an Army Corps consisted of the Divisional and the Corps Artillery, the former being composed of two to four or more batteries, an integral part of the Division, commanded by a field officer, while the latter had two or more field or horse batteries, commanded by a colonel. The artillery attached to an army corps was called an Artillery Brigade (3-b).

The foregoing data is of importance for comparison with the personnel and material that was actually available and used in the field in this war.

In examining the artillery tactics of this period, no attempt should properly be made to criticize those employed from the standard of the present day, although it should be understood that the mission of the weapon still remains unchanged, and that merely the methods of its accomplishment have

been modified (4). Attention should rather be drawn to what was actually done in comparison with what was then prescribed as the proper procedure. For in the intervening years the tactics of artillery has been greatly modified, particularly since the Russo-Japanese War in 1904-5.

The consideration of the tactics employed in the use of field artillery in the Spanish-American War should properly begin at Tampa, the port of embarkation for Cuba. The only field artillery used in this war was that employed in Cuba and Porto Rico, and the tactical use of the weapon was influenced directly by the amount actually transported to the fields of action from that assembled at that point. However, as stated below, apparently the first actual use of artillery in this war occurred right at Tampa.

By May 25, 1898, ten batteries of light and four of heavy artillery had reached Tampa, along with the forces being assembled at that point (5-a). The light artillery was all four gun and four horse batteries. Although an attempt was made to expand them to six horse, six gun, batteries, the necessary means to do so failed to materialize before the expedition left for Cuba (6-a).

Due to lack of transportation and the desire to take all possible of the other arms of the service, only the following artillery was taken to Cuba with Shafter's army: (5-b)

4 batteries of four guns each, field artillery,
1 Hotchkiss revolving cannon,
1 pneumatic dynamite gun,
4 Gatling Guns (firing .30 cal., rifle ammunition),
4 5" siege rifles,
4 7" howitzers,
8 3.6" field mortars.

It was necessary, due to the nature of the transports furnished, to place the horses, guns, various material and supplies, and the men, on different ships. This proved to be a serious handicap, preventing the proper supervision en route, and hampering the unloading and assembly of units at the point of debarkation.

The total strength of this army, officers and enlisted, was 16,877 (5-b). This, according to the prescribed proportions (3-d) called for from fifty-one to sixty-eight pieces of field artillery, in place of the sixteen that were taken.

Nearly all the transports had begun to move down the bay from Tampa at 2:00 P.M., June 8, 1898, when Shafter was ordered not to sail until he received further orders. This proved to have been due to a mistaken report that a Spanish squadron had been sighted in the Bahama Channel. The transports were recalled and as many as possible brought into the narrow channel dredged from Tampa Port to deep water. Here they were placed under the protection of some field guns which had been in position for some days at the end of the pier. Of course it is questionable how much protection these guns would have afforded placed on the end of a pier in the open, against even a lightly armored vessel. If not silenced, they would have at

least been able to cover the channel against small boats. However, these guns were not designed for tactical use as sea coast or harbor defense weapons.

The expedition finally all got away on June 12th. The trip to Cuba was without incident, other than the difficulties of properly caring for the horses, or, giving them adequate ventilation, due to the ships in which they were transported. The light artillery was disembarked at Daiquiri, Cuba, June 22-26th. It was forbidden to land the siege (5 inch) rifles and the 7 inch howitzers there; two siege guns were later landed at Siboney, but were not brought up to Santiago until later, when they were placed in position at the front on the right of the First Cavalry (6-b). The light 3.6 inch mortars were not brought up until July 6th, going into action on July 10th.

The guns and material were landed at Daiquiri on lighters, and the horses were dropped overboard and caused to swim ashore. The landing was delayed due to lack of landing facilities, and the fact that the artillery was distributed on different vessels.

Two six-gun batteries arrived subsequently but did not go into position at the front before Santiago until July 11th, the last day of firing, and did not fire a shot.

There were, therefore, in this campaign before July 17th, in all, four four-gun and two six-gun batteries or twenty-eight 3.2 inch field guns; and eight 3.6 inch field mortars in front and surrounding Santiago. No siege guns or siege howitzers had been brought up (6-c).

The artillery was landed last at Daiquiri after all the other troops. More importance was placed on the need of the other forces and little value given to the vital principle of having artillery well up in the lead with the infantry. This attitude remained unchanged throughout the campaign.

The artillery was ordered to proceed to the front by the way of Seville and experienced great difficulty in getting there over the narrow trail. This trail was not put into shape for the passage of artillery, and they received little help, but mostly jeers and ridicule from other troops as they struggled forward (6-d). The entire battalion did not reach Seville until the 28th, having left much of their ammunition behind on the beach at Daiquiri due to lack of transportation (6-e). This lack of supply service resulted in a shortage of ammunition in subsequent operations.

Smokeless powder was prescribed (3-e) for use in the 3.2 inch piece but only black powder was taken to Cuba. The powder charge and the shells were separate, not fixed as at present. The gun sights required direct laying. Although indirect laying was recognized as a possible use in firing, it was little stressed. The position of all officers was prescribed to be at the battery (3-g). Consequently, the heavy pall of smoke from the black powder not only revealed the gun positions, but also hindered, and at times made impossible, observation of fire.

The first use of artillery in action was that of two Hotchkiss mountain guns under Captain Watson, 10th Cavalry (dismounted), with General Wheeler, on June 23rd at Las Guasimas (5-c). This was little more than a skirmish, although it had a marked effect in promoting the morale of the

forces. These two guns were placed well to the front, commencing the action by firing directly on the Spaniards, who also had two light guns. After the position was carried, no attempt was made to pursue the enemy, nor were the two Hotchkiss guns moved forward to fire on the fleeing Spaniards either directly, or from a flank position. This has been given as the correct procedure in such a case (3-h). However, the original position was well selected, and the fire delivered very effectively.

The next artillery to go into action was that of Battery "E", First Artillery, under Captain Allyn Capron, supporting General Lawton's attack on El Caney, July 1st. This battery consisted of four 3.2 inch guns and eighty-four men. The battery was placed in position near the centre of the position, with a range of about 2,225 yards to the objective. This position was unusual in that it was centrally located, and not to the flanks as was the usual location at that time. Although it was located so as to have a good view of the targets, its range was too far, as better positions were to be found nearer the attacking troops. General Ludlow reported (5-d) that it was too far away to be effective. Yet the extreme range for these guns was given in the range tables as 4,500 yards, both shrapnel and shell (3-i). At about 3.00 P.M., the battery was moved to within a mile of El Viso, where it proved very effective against the walls of that position.

This action started with shots from Capron's battery at 6.15 A.M., and ended with the capture of the enemy's position at 5.00 P.M. The fire of the battery was necessarily slow throughout due to a shortage of ammunition. Major General Lawton, in command, reported that he personally conducted its fire (6-f). The artillery support afforded by this one battery of four 3.2 inch guns was totally inadequate. During the heaviest part of this action, and when their use would have been probably a decisive factor, General Shafter held two other similar batteries in reserve near his headquarters less than three miles away. And, although another and more important action had started and was going on at the same time four and a half miles to the southwest, yet here was the most difficult fighting, and a position whose reduction was planned to occur before the other action was to be pushed home. Unquestionably those two batteries should have been placed in action at El Caney.

The other more important engagement mentioned above was the action at San Juan Hill. Grime's 3.2 inch battery commenced the action there from a position on El Pozo Hill at about 8.00 A.M. on the same day, July 1st. The position was excellent with good command of the enemy's position on San Juan, besides enfilading one of their main trenches. The range was about 2,500 yards. This location fulfilled the requirements for a battery position in support of assaulting infantry, being well forward, to the flank, with a good view to the front for direct laying and observation of fire effect but as the assault of the hill was not until between noon and 2.00 P.M., fire was opened entirely too soon, especially since the supply of ammunition was limited.

There appears to have been no liaison with the supported troops, nor any efforts made to obtain fire effect observation away from the immediate battery position where observation was blinded by the heavy clouds of dense smoke from the black powder used. Crowds of dismounted troops were permitted to mass in and around the battery where they were sure to suffer from the enemy's return fire, besides impeding the service of the battery.

At about 2.00 P.M., Batteries "K" and "F" were placed in position on El Pozo abreast of Battery "A". These were the batteries that had been held in reserve near General Shafter's headquarters. They were in action only ten minutes when orders were given to cease fire as our troops were advancing up the slope of San Juan Hill. The fire delivered in this short interval was very effective. The order to cease fire, given by unknown parties, seems to have been caused by a fear of having the men under the line of fire and, possibly, to prevent any being hit as they approached the top. The batteries ceased firing and made no effort to lift their fire to enemy positions to the rear. This was not due, however, to negligence on the part of the artillery officers, but from the way the situation was handled, there being no one to authorize them to open fire where they knew their fire would be most effective. After the position was carried, Batteries "F" and "K" were moved forward to a poorly selected position on the ridge called Kettle Hill, where they were unable to go into action. They could have been used, in case of a reverse, to sweep the top of San Juan from that position. During the night all three batteries were moved forward to the top of San Juan to shell the city of Santiago at dawn. They occupied pits previously dug by the infantry, but were so placed as to be unable to sweep the foreground to their immediate front. At dawn, and before they fired a shot, the enemy opened on them with a furious fire from close by. This fire also fell on the troops once more massed around the batteries. In this instance the heavy smoke from the black powder when they returned the fire probably screened their positions and rendered their casualties much less than they would have been otherwise. The batteries were returned without delay to their previous positions on El Pozo.

The movement to the top of San Juan was unnecessary and poorly advised. The batteries could have rendered more effective fire from El Pozo than from San Juan both on the hostile rear lines and on the front of Santiago. However, after they returned no fire was rendered due to lack of orders to do so (6-h). Here again was a lack of appreciation of the use of artillery and a failure to have liaison between the associated arms.

The next action in this campaign was before Santiago, where Capron's battery went into position July 5th on the right of the line. Best took up position on July 3rd, 1,200 yards east of Fort Canosa, with Battery "K"; and Grimes with Battery "A", Second Artillery, went into position on the left of the line. Fire was held up by the series of truces then under way and the batteries spent the time strengthening their position. Eight field mortars, 3.6 inch calibre, were also put into position on the line on July 6th. All of these guns executed fire on the enemy works and artillery from 4.00 to 6.00

P.M., July 10th, and up to 1.00 and 2.00 P.M., on the 11th, when fire ceased due to the armistice.

The positions and the fire of the artillery before Santiago were excellent. Previous mistakes were avoided, positions were well selected, and there appeared to be better liaison with the other arms. The number of guns was, of course, totally inadequate for the task. However, the few present had great moral effect on the enemy as the small amount of fire delivered was extremely well executed. This is clearly established by the interesting report of the Spanish officer commanding the hostile artillery (6-i). Ammunition was low, however, particularly with the eight 3.5 inch mortars, and it is just as well the action stopped when it did.

The Spaniards had twenty-seven guns in position before Santiago, ranging in calibre from 7.5 to 15 cm.; all but two were of bronze. Of the bronze guns only eight were breech loading. The two modern (Krupp) guns were of but 7.5 cm. calibre. Their ammunition was low, with no prospects of replenishing it. They used smokeless powder which made it a difficult task to locate them (6-j).

The four Gatling guns did very effective work in the attack on San Juan Hill but fired .30 calibre ammunition and, hence, were of a machine gun classification, rather than that of field artillery.

The campaign in Porto Rico was very brief but the field artillery rendered effective results in the short period. Two four-gun 3.2 inch batteries, Battery "F", Third Artillery (Potts), and Battery "B", Fourth Artillery, was attached to the army under General Wilson, which landed at Ponce, Porto Rico, July 28th-August 6th, 1898. The latter battery was commanded by Captain Anderson, and was in action against the enemy on the Banos Road a mile south of Coamo on August 9th. Their position was in an open field south of the road and about 2,000 yards west of the Spanish block house on the Baños road (5-f).

General Wilson, in his report (5-f) states that he personally directed the fire of Anderson's battery in this section. These instances of the commanding general personally directing a battery's fire would scarcely be expected to occur in a war of the present time. The battery commenced the action by firing on the block house, setting fire to it after fifteen minutes' firing. It covered the gap between the two infantry columns before they united and rendered excellent results throughout the engagement. The position selected was good and the battery was moved up within 1,000 yards of the objective as the attack advanced. The action was brief and successful, the single battery of artillery contributing markedly to the success obtained.

Pott's battery was used from 1.25 to 2.15 P.M. on the 13th of August against the hostile position on Asomante Hill, and El Penon. The battery was placed on the reverse slope of a low bridge to the left of the road, with a range of 2,150 yards to the enemy's guns, and 1,200 yards below them. The position was poor but the best the place afforded. The results obtained, however, were excellent, although the black powder proved to be a great

detriment (6-i). This engagement was not carried to a conclusion due to the receipt of orders to cease all operations pending peace negotiations.

Two similar batteries, "C," Third Artillery, and "D," Fifth Artillery, were also attached to General Schwan's command in Porto Rico, which moved on August 9th on Mayaguez, but failed to get into action due to the suspension of hostilities on the 14th instant.

The reports and histories covering the period of the hostilities in Cuba and Porto Rico in 1898 reveal clearly that the field artillery rendered excellent service where permitted to do so. Their officers and men suffered great hardships in performing the missions assigned to them, and were greatly handicapped by defective material and shortage of personnel and equipment. The officers handled their weapons skilfully and demonstrated that they were thoroughly conversant with the best artillery practice and procedure of their generation. Where they were unable, through no fault of their own, to apply their knowledge and ability to the situation confronting them, they cheerfully accepted the conditions imposed upon them and made the best they could of matters. Small indeed would be one who would attempt to find petty flaws in their work or reflect on their characters and abilities.

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THE 2.95 MOUNTAIN HOWITZER AS AN ACCOMPANYING GUN

By Major John O. Lackey, P.S. (F.A.), U.S.A.

EACH war has produced new weapons and fighting roles for the infantryman. During the World War, many developments took place which greatly assist infantry fire power and, since the war, every effort is being made to improve the power of the infantry and solidify the wide scope of fire weapons of our "backbone" troops.

The infantryman today represents the most formidable and versatile fighter we have been able to produce. He is machine gunner, .37-mm howitzer gunner, trench mortar gunner, grenadier, automatic rifleman, the pilot of the leviathan of "no man's land," the tank and its ever increasing armament, bayonet fencer, effective pistol shot and as normally to be expected, an expert with his first love, the rifle.

To insure the advance of the infantry in battle all arms of the service are combined into a single fighting machine. Other arms may make temporary gains or even eject an enemy from an area or make it untenable by various means for certain periods but no gains are considered permanent until our infantry has passed over or occupied it.

The task assigned to each arm is based upon the infantry mission. "The reason for the existence of the Field Artillery is to support the infantry." In the attack the role of the infantry culminates in the role of the entire force. In the defense, no position is lost until the infantry defenders yield to the bayonet. Like the pioneer who blazes the trail into the beyond the infantryman must pave the way for the oncoming army. To do so he must have help from every source and the more help he can carry along within his own grasp the more rapid is progress to the end of hostilities.

Not only the experience of the World War, but experience handed down from previous campaigns has demonstrated the continuing value of quick assistance from other weapons to the infantry units of all sizes. In the Cuban campaign the gatling gun (then an experiment) not only did something to advance our lines materially, but it elevated the morale of the infantry by its presence. The well remembered "pom-pom" gun of the British infantry in the Boer War played an important part in aiding small forces to pursue and clean up the scattered groups of Boer riflemen in the hinterland, which could have held out indefinitely if opposed by riflemen only.

In the Philippines, during all the campaigning in various parts of the archipelago, from early 1899 to the last Moro campaign in Lanao in 1917, the brunt of fighting fell to the infantry, usually in small units, from a company to a regiment. Invariably they found enemy strongholds defended

by some artillery, of more or less obsolete type but effective at short ranges, which called for hurried strategy, tactics and courageous assault at the final stages beyond anything they would have had to endure had they one weapon at hand of heavier calibre to support them. In numerous instances the infantry commander withheld his final assault until a battery, or section of 2.95 Mountain Howitzers, Pack Artillery, could be hurried over the mountain trails to support him by neutralizing the enemy guns or lantakas so that assault could be made without severe sacrifice of men.

This gun has been a deciding factor in many battles fought against great odds in the jungles and mountain strongholds of the Philippine archipelago since 1906. In our fighting experience in tropical countries light artillery has always been handicapped. The lack of roads, the torrential rains, dense jungle, rice paddies and seemingly bottomless mudholes along beaten tracks made it next to impossible for light guns to operate in our Philippine campaigns. In some instances, during the first years of the insurrection, light guns were disassembled and the parts, ammunition, etc., loaded on bamboo drags, were drawn by carabo to scenes of action and in a measure afforded support to the infantry.

Along the Mexican border, the Division Commander's plans have included the scheme of assigning some units as accompanying artillery to isolated groups guarding important property, both government and private concerns.

The Chinese Republican Army and the Northern Manchurian Army of Invasion in 1922 to 1924, had with their infantry regiments from two to four light pack howitzers, quite similar in many respects to our present 2.95 Mountain Howitzer. They were found close up to the infantry lines of resistance, or strong outpost lines, in depressions, such as gullies, occasional trenches, or steep mountain passes; pounding away, seldom molested by enemy artillery fire of other calibres and, as one could readily see, assisting greatly in keeping up the confidence and morale of the infantry. They were often moved about for distances varying from a few hundred yards to a mile, by orders from the local infantry commander. These were not attached or roving guns but an integral part of the infantry. The enlisted men serving the gun were infantrymen in most cases. An occasional non-commissioned officer present wore the artillery insignia, but artillery officers were seldom seen anywhere except with the Divisional Artillery which was a 3-inch Krupps type gun, manufactured in Chinese arsenals in most cases.

In a campaign where infantry operates over scattered areas, or is left behind in occupied territory, light artillery can seldom be spared, nor is it contemplated to detach batteries for such work unless the infantry mission demands it.

In modern warfare where infantry, by their infiltration methods, are building up lines or strong points, some assistance is often needed by fire heavier than their own machine guns and 37-mm howitzers, and too often they fail to get supporting artillery fire on elements of the line, where fleeting opportunities present themselves, to secure key positions which often mean success or failure to their operations in important areas. Supporting artillery,

as it is normally employed, may not be able to continually assist in every part of the front line. Each infantry unit out in the advance, however small, is fighting a little battle all of its own, ofttimes more desperate than their work along a general advance of the main line and with little or no hope of getting artillery fire support at the time most needed. With one or two 2.95 Mountain Howitzers at their command, severe blows could often be dealt and important gains made by advanced or flank companies at the crucial moment when delays, however short, awaiting normal artillery support would deprive them of the fleeting opportunity to win important advantages.

The problem of reserving certain batteries of the organic artillery to be used as antitank guns would be solved if the infantry had their own weapon of some such heavier calibre than the present 37-mm howitzer. The new howitzer recently recommended for the infantry is of about the same calibre but has not the mobility and accuracy of the 2.95 Mountain Howitzer. The four-pack-mule-gun section, with four additional animals to carry ammunition panniers, make this gun the most mobile and most formidable of any weapon that could be placed in the hands of the infantryman. With its present advantages it can accompany infantry anywhere a man can go without using his hands in climbing. Over narrow trails, defiles, rugged mountains, through dense jungle, night or day the pack mule will bring up his gun. Its high trajectory and method of pack transportation enable it to move under any cover close up to the broken front areas, direct a surprising and severe burst of fire on an enemy and, before light artillery can be brought to bear upon it or sufficient enemy rifle fire concentrated to withstand attack, strike their blow, speedily pack up again and be led away through underbrush or broken ground to other advanced positions for similar repetitions. These advantages make them increasingly valuable as an antitank gun and the infantry commander having this weapon near at hand under his command need have little fear of tanks of the present time and development.

The personnel serving the 2.95 Mountain Howitzer need not have the high technical training necessary for that of the personnel of light or medium artillery. In indirect fire, the knowledge required of machine gunners or 37-mm howitzer gunners will suffice to effectively handle the 2.95 howitzer. In direct laying (which is exceptional) a good rifleman can execute fire with it with as much ease as a 37-mm howitzer and with ten times the effect.

The battery as a whole can be used quite similarly to that of a light gun battery that is attached to a regiment or battalion of infantry. Broken into sections or roving guns, any infantry unit would soon come to appreciate their value and the morale, as well as fighting efficiency, would be increased to a great extent.

If such a weapon was contemplated as an infantry howitzer, the question of economy would arise and comparisons would be made based on the present organization and cost of upkeep of the Field Artillery 2.95 Mountain Howitzer units. It might be pointed out that considerable reductions could be made without greatly impairing efficiency, if the guns were operated in a manner similar to those that were left in the hands of infantry units in Jolo

and Zamboanga, Philippine Islands, in recent years (1912 to 1925). In the first consideration, the number of mules in the combat train could be reduced to half, if the combat weapons of the infantry battalion could be increased by one and it carry one hundred rounds of ammunition. This, with the forty rounds packed in the gun section and the combat train relay pack mules, would insure one-half a day's fire per gun. The personnel of the present combat train organization could be correspondingly reduced and the fifth section trimmed to the actual communications and instrument details as would be considered necessary in handling the gun within infantry lines. The pioneer kit mule in the gun section could be dispensed with while serving with infantry, while the service section, kitchen and ration packs could be omitted if the personnel could be handled in a like manner as other companies, equipped with rolling kitchens, water carts, etc., and these added to the service train column.

The gun packed, including the aparejo and accessories, weighs 335 pounds; the cradle, 306 pounds; the trail, 336 pounds; wheels and axle, 337 pounds; ammunition with two panniers (10 rounds), 333 pounds.

THE GENERAL PRINCIPLES OF LOADING TRANSPORTS FOR NAVAL MISSIONS

By Major S. L. Howard, U.S.M.C.

YEARS of experience have developed that the most important principle of loading is that "personnel and its material must be embarked on the same ship," that is to say, the artillery personnel must be on the same ship with its guns, fire control instruments, ammunition and other artillery equipment; that the engineers shall not be separated from the materials on which their work depends, etc.

Fortunately, it has been demonstrated from the equipment and tonnage table of the Marine Corps that any of the transports of this day and age are easily capable of carrying the initial equipment and ninety days' maintenance for the maximum personnel which they can accommodate. This fact greatly simplifies the problems of making out loading schedules as it precludes the necessity of figuring out cubage or tonnage and loading schedules can now be based solely on personnel.

In loading personnel, the ideal plan would be to load an infantry organization, which is both a tactical and administrative unit, with its supporting troops, such as artillery, on the same transport.

This would indicate that an infantry regiment, the smallest tactical and administrative unit, should not be split. However, very few transports are capable of accommodating such a large number of men. Therefore, we must select as an embarkation infantry unit a smaller organization, that will not tax the capacity of the smaller transports and will at the same time approach the ideal.

The infantry battalion is such an organization and should therefore be adopted as the infantry embarkation unit.

In loading supporting and special troops, the following are the main governing considerations:

As the number of transports must be kept to the minimum economy of space is vital. Therefore, where there is an excess of accommodation on any transport, as often will happen, this excess space should be filled as nearly as possible by units of special troops belonging to the same brigade or division.

All of the artillery should not be loaded on one or two transports because, if these transports are lost or separated, then no artillery is available. This same principle applies to engineer and medical troops; also aviation, unless all aviation is embarked on a carrier. For this reason and as the artillery should be embarked on the same transport with the infantry units which it will later support, the battery is the logical selection as the artillery embarkation unit.

If the mission of the expedition calls for a landing against opposition, aviation organizations should, if practicable, be loaded on airplane carriers, so that the carriers can act as landing fields and service the planes during the first phase of the operations. If carriers are not available, some amphibian or hydroplanes should be carried in order that the services of the aviation units can be utilized during the first, as well as subsequent phases of the operations.

If the landing is to be effected without opposition, the planes can be knocked down, crated, and the personnel and material loaded by divisions or squadrons in any available space.

There are two methods of loading material which we will call the vertical and horizontal methods. The vertical method is the loading of different classes of materials such as rations, ammunition, equipment, etc., in separate holds of the transport. This would be the ideal method of loading if all transports had the same and desired number of holds, and if the bulk and weight of these classes of material was approximately the same. However, such is not the case. The horizontal method is the loading of material in horizontal layers in the reverse order of its need. This is believed in most cases to be the preferable method. The top layer should be composed of the amount and kind of material that will be needed in the first three days by the units aboard the transport. The mission and intention of the Commanding General should largely determine the composition and depth of other layers.

Troops should embark in heavy marching order, fully equipped, and immediately proceed to their sleeping compartments to stow their small arms, infantry weapons, and individual equipment. They then become available as loading parties.

Cole carts can be stacked by removing the wheels and carried as a deck load or stowed in the top layer of an accessible hold.

Guns and caissons may have their wheels removed and stowed in the top layer of an accessible hold, but it is believed preferable to carry them as a deck load when practicable, with wheels interlocked and lashed.

All organization equipment should be so marked that ownership can be established at a glance. This can be done by the use of stripes painted around the boxes, etc. For example:

Fifth Regiment	Green stripe
First Battalion, Fifth Regiment	Green, red
Second Battalion, Fifth Regiment	Green, white
Third Battalion, Fifth Regiment	Green, blue.

Companies of Battalions to have their stripes in addition, etc.

It is believed that the above can be briefly summed up into the following general principles for loading transports for Navy missions.

1. Personnel and their material must be loaded on the same transport.

2. Loading schedules can be based on personnel alone, tonnage and cubage for initial equipment and ninety days' maintenance being disregarded.

3. The embarkation unit should be the infantry battalion, artillery battery, engineer company, medical battalion, aviation division or squadron.

4. Economy of space is vital and the special troops should be used to fill accommodations.

5. For a landing against opposition, the services of aviation organizations should be made available for the first phases of the operation by loading them on plane carriers or by the employment of amphibian or hydroplanes.

6. For a landing without opposition, the personnel and material of aviation divisions or squadrons can be loaded in any available space.

7. The top layer of material should consist of three days' rations, three days' ammunition, and the organization material and equipment that will be needed during the first phase of the operation.

8. Small arms, infantry weapons, and the equipment in the hands of individuals should be retained by the individuals and carried and stored in the sleeping compartments.

9. Cole carts should be carried as a deck load stacked or stowed in the top layer of an accessible hold.

10. Guns and caissons should be carried as a deck load with wheels interlocked and lashed, or stowed in the top layer of an accessible hold.

11. Organization equipment should be so marked that ownership can be established at a glance.

AN EFFICIENT MARINE CORPS AVIATION RESERVE

By Captain L. E. Woods, U.S.M.C.

THE general mission of Marine Corps Aviation is to provide such well trained personnel and effective material as is required for operations with the Advanced Base and Expeditionary Forces of the Marine Corps. In order to carry out this mission, it will be necessary to fill up the authorized peace-time squadrons to minimum war strength as soon as possible after mobilization is ordered.

The additional trained commissioned pilots needed when the complements of the present peace-time squadrons are raised to war strength must be obtained from the Reserve if the Marine Corps Aviation is to be able to meet the demands made upon it in the case of a national emergency. However, at the present time, the Marine Corps has but twenty-three officers and 118 men in the Aviation Reserve. Nearly all of the former are war-time flyers and only six have come back for training the past year. The age of these commissioned pilots is such that in a few years they will no longer be available as aviators. In order to replace these officers with young officers trained as pilots, to provide the proper number of desirable young men as candidates for commissions in Marine Corps Reserve Aviation, so that the commissioned ranks of Marine Corps Reserve Aviation will be filled with young, qualified flyers; to furnish the additional trained officers and men necessary to fill our squadrons up to war strength when mobilized; and to fulfill the requirements of the five-year program for Marine Corps Reserve Aviation, certain qualified young men are to be enlisted in the Marine Corps Reserve and assigned to aviation duty for training as Student Naval Aviators. Upon completion of their flight training, these men are to be commissioned second lieutenants in the Marine Corps Reserve, provided they are otherwise acceptable.

The Naval Appropriation Bill for 1929 provides sufficient funds to put the above plan into operation, and it is expected that thirty-seven students will be trained during the coming year. These students must have the following qualifications:

GENERAL

(1) Must be over nineteen years of age and less than twenty-seven years of age at the time of reporting for primary flight training. Applicants under twenty-one years of age must have the written consent of parents or guardians. This consent must be unqualified.

(2) Must be an American citizen.

(3) Must signify their willingness to be ordered to active duty for a period of at least one year after they have been commissioned second lieutenants in the Reserve provided their services are needed.

(4) Each candidate must be of commissioned officer caliber as established by record, standing in his community, character, appearance, manner and bearing, and capacity for leadership.

EDUCATIONAL

(1) Must be either college graduates, or attending college with the expectation of graduating, or furnish evidence of the equivalent of a college education.

(2) Must have successfully completed the ground training for student aviators as given by the Squadron or Division Commanders of the Naval Reserve Aviation Squadrons of the First, Third, Fourth, Ninth, Twelfth and Thirteenth Naval Districts and the District of Columbia and have been selected by the Commanding Officer of one of the various Naval Reservve Aviation Squadrons for flight training.

PHYSICAL

(1) Must have the physical qualifications required for an officer of the regular Marine Corps.

(2) Must have passed a physical flight examination given by an accredited Navy flight surgeon within six months prior to the date of reporting for flight training.

Candidates who have the above qualifications are enlisted as privates, Class VI, Volunteer Reserve, promoted to privates first class, and assigned inactive aviation duty until such time as it is possible to give them primary flight training. At that time they are assigned to active duty and ordered to the nearest Naval Reserve Aviation Station for primary flight training. This training consists of forty-five days training duty, in accordance with a primary flight syllabus which provides ten hours of instruction and thirty hours of regulated solo flight in a primary type of plane.

At the present time there are four Naval Reserve Aviation Stations where primary training is given. These are located at Squantum, Mass.; Rockaway Beach, L. I., N. Y.; Great Lakes, Ill.; Sand Point, Seattle, Wash. To assist in the training of the students ordered to the various stations, one Marine officer and three enlisted men of the Reserve are detailed to permanent active duty at each Naval Reserve Aviation Station. The officer, who is a Naval Aviator, instructs the students in flying, and the enlisted men act as plane mechanics. The planes used in this training are the regular primary Navy training planes of either land or sea plane type. The Naval Reserve is reimbursed at the rate of $23.50 an hour for each hour that the plane is used for instruction of Marine students.

Upon completion of primary flight training all students will be sent to the Naval Air Station at Pensacola, Fla., for advanced flight training. This advanced training will consist of sixty days' training duty, during which time the student will be given approximately 100 hours' flying in advanced type seaplanes, ground and aerial machine-gun work, bombing exercises and navigational flights.

Immediately following the completion of the course in advanced flight training all students will be examined professionally for appointments as second lieutenants, Class V, Volunteer Marine Corps Reserve. The scope of the examination will include the work covered in the preliminary ground-school course, together with courses covered during advanced training. A report of this examination will be made to the Major General Commandant, so that the appointment of the candidate concerned as a second lieutenant in the Volunteer Marine Corps Reserve can be referred to a board for examination and recommendation as provided in Marine Corps regulations.

After the candidate is appointed a second lieutenant in the Volunteer Marine Corps Reserve, he will be ordered to active duty with a regular Marine Corps Aviation Squadron for a period of one or two years. It is expected that thirty Reserve second lieutenants will be ordered to duty during the fiscal year 1930, provided Congress appropriates the necessary funds. In this manner it will be possible to fill up our peace-time squadrons with the proper number of commissioned pilots, and will enable Marine Corps Aviation to meet the demands of the five-year program in so far as commissioned pilots are concerned. The five-year building program calls for 103 commissioned pilots at the end of the fiscal year 1931. Inasmuch as Marine Corps Aviation has but 54 commissioned pilots at the present time, it can be readily seen that the need for additional commissioned pilots is a serious one.

Upon completion of their active duty the Reserve second lieutenants will be assigned to inactive duty and attached to the aviation unit which is already organized in each reserve area. According to the present organization, aviation units in the various areas are designated as follows:

Eastern Reserve Area—Observation Squadron 6-M, Division 2.
Central Reserve Area—Observation Squadron 6-M, Division 3.
Southern Reserve Area—Fighting Squadron 5-M, Division 2.
Western Reserve Area—Observation Squadron 8-M, Division 2.

According to the present plan, the number of Student Marine Reserve Aviators trained each year until stabilization is reached will be as follows:

Year	*Number*
1930	45
1931	52
1932	60
1933	60

After the Reserve reaches the strength required for mobilization in accordance with existing plans, only such student Marine Corps Reserve Naval Aviators will be recruited and trained each year as are needed for replacements. It is estimated that twenty students will be required for this purpose.

In this manner Marine Reserve Aviation will be composed of young, experienced, well-qualified aviators and will be in a position to furnish such additional pilots as Marine Corps Aviation may require when it is mobilized for war, and thus enable it to successfully perform the missions assigned it.

EVENTS IN NICARAGUA SINCE MAY 19, 1928

MAY 19, 1928: The Marine patrol engaged an outlaw band at Santa Rosa. The outlaw casualties were unknown but the marines' guide, a Nicaraguan, was wounded.

May 20, 1928: Guardia patrol attacked an outlaw group near Jicaro, killing one outlaw with no guardia casualties.

May 20, 1928: Marine patrol had contact with outlaws under Sevilla near Licoroy killing one outlaw with no marine casualties.

May 29, 1928: Marine and guardia patrol had contact with outlaws numbering about twenty at Hacienda "Ojo de Agua". Horses and rifles were captured and one outlaw was killed with no casualties to the patrol.

May 29, 1928: Cornelio Sandobal, an outlaw chief from the Dipilto-Ococona-Santa Maria area, surrendered himself and four rifles at Ocotal.

May 29, 1928: Marine detachment of twenty had contact with a band of five in the Masaya area, killing one with no marine casualties.

May 30, 1928: Santa Maria Sevilla, an outlaw chief, and twenty followers surrendered to the commanding officer at Jinotega.

June 2, 1928: Marine patrol had contact with outlaws on the Coco River east of Santa Cruz with no casualties.

June 3, 1928: Four additional unarmed members of Sevilla's band surrendered.

June 6, 1928: Marine patrol had contact with about twenty outlaws near Santa Cruz. No casualties were reported.

June 8, 1928: Marceline Hernandez, an outlaw chief, and eight members of his band surrendered to the commanding officer at Esteli.

June 12, 1928: Outlaw band of thirty under Altamirano raided a lumber camp on the Poteca River eight miles from the junction of the Coco River. The owner, a German, was warned not to continue operations without the consent of Sandino.

June 12, 1928: Air patrol came upon forty outlaws with horses on rafts on the Bocay River near Casca. They were strafed with machine-gun fire. Casualties were not estimated.

July 7, 1928: One hundred and twenty-seven unarmed outlaws surrendered at Ocotal and requested amnesty.

July 9, 1928: Sixty-six outlaws surrendered at Ocotal.

July 10, 1928: Twenty-five outlaws surrendered at Somoto.

July 11, 1928: Three outlaws surrendered at Trinidad.

July 14, 1928: One hundred and seventy-three outlaws surrendered at Somoto.

July 16, 1928: One hundred and fourteen outlaws surrendered at Somoto.

July 17, 1928: Four outlaws surrendered at Trinidad.

July 22, 1928: Three outlaws surrendered at Dario.

July 23, 1928: Three outlaws surrendered at Dario.

A vast amount of propaganda has been distributed among the outlaws and with the surrender of each outlaw as much publicity is given the event as possible. This coupled with the destruction of outlaw supplies by marines and the lack of action because of bad weather has apparently resulted in breaking the outlaw morale. The Nicaraguan Government has continued to grant full and complete amnesty and guarantee protection to all outlaws who surrender and in addition has given $10.00 for each rifle surrendered. There have been many cases where one or two outlaws have surrendered and since May 30, 1928, there has been reported a total of approximately six hundred outlaws surrendered under the above terms. A large portion of these have not surrendered guns and most of them are members of small bands and are not connected with the main outlaw strength under Sandino.

August 7, 1928: Marine patrol of forty-six had contact with outlaw band on the Coco River about sixty miles from Bocay. One marine was killed and three wounded. Ten outlaws were killed with thirty-seven wounded.

PROFESSIONAL NOTES

AVIATION

ANOTHER Fokker tri-engined airplane has been delivered to the Marine Corps by the Atlantic Aircraft Corporation. Installation of the extra gasoline and oil tanks is now being made, and it is expected that the plane will be ferried to Aircraft Squadrons, Second Brigade, Managua, Nicaragua, about August 15th. First Lieutenant C. F. Schilt will be the pilot, with Master Technical Sergeant Archie Paschal as relief pilot, and Gunnery Sergeant Omer C. Adams as radio operator.

During the past year, 1,780 passengers and 1,004,058 pounds of freight and mail have been transported by air in planes belonging to Aircraft Squadrons, Second Brigade, Managua. That the transport planes are a valuable addition to the aviation forces in aiding the ground troops to complete their missions was clearly demonstrated during the week of July 13th, when three Fokker transports transported a detachment of forty-two men with full packs, and 2,500 pounds of equipment from Ocotal to Apali in one hour and thirty-five minutes. It is conservatively estimated that it would have taken the patrol two days to hike the same distance.

During the past two months planes have been sent to the following places to participate in the opening of commercial airports: Lowell, Mass.; Shamokin, Pa.; Auburn, N. Y.; and Lakeland, Fla.

A six-weeks course in ground-school aviation instruction, similar to that given to the midshipmen at the Naval Academy, has been started in connection with the basic school at Philadelphia. The first class, comprising seventeen lieutenants, will commence instruction on August 17th. Three Marine officers who are Naval Aviators have been ordered to the basic school as instructors. Hereafter, all second lieutenants who are sent to the basic school, with the exception of those second lieutenants who are graduates of the Naval Academy, will be required to take this course of instruction.

Observation Squadron Eight, whose permanent station is at Naval Air Station, San Diego, Calif., has been at Mather Field, Sacramento, Calif., for the past six weeks, on special temporary duty. The concentration of the Naval Air Forces at North Island made it necessary for all operations of the Marine Squadron to be greatly curtailed, if not stopped altogether. In order to continue the advanced training of Naval Aviators and Naval Aviation Pilots attached to the squadron, and to hold preliminary gunnery and bombing practice, arrangements were made with the Secretary of War for the use of Mather Field. It is expected that the squadron will return to San Diego about October 1st.

PERSONNEL

Prior to the World War, the Marine Corps had, in general, no combat organizations larger than companies. When the necessity arose for organizing

an expeditionary force, the men were assembled by reducing the strength of navy yard guards, and were formed into provisional battalions, regiments, and brigades. Upon the termination of the expedition, these provisional units were disbanded, and the men were returned to the navy yards. The exception to the foregoing is the First and Second Regiments that were organized as the First Brigade and were serving in the Philippines.

In 1914 the practice of assigning permanent numbers to companies was commenced. At that time the Marine Corps had no station such as Quantico or San Diego, where a large force could be quartered and trained, and therefore these numbered companies were assigned to the various navy yards, to be mobilized into larger units in accordance with a prearranged plan, in case of emergency. When suitable barracks were provided at the Navy Yard, Philadelphia, certain of these numbered companies were transferred to Philadelphia to form an Advance Base Regiment.

Subsequent to the outbreak of the World War, but prior to the entry of the United States into that war, the Third, Fourth and Fifth Regiments were formed. Upon the entry of the United States into the World War, regiments from the First to the Sixteenth inclusive were organized.

Since the war the regimental organization of expeditionary units has been maintained and the existing regiments, with their present stations are as follows:

First Regiment, (Maintenance Organizations) Quantico, Va.
Second Regiment, Haiti.
Third Regiment, (Reserves).
Fourth Regiment, China (Home Station, San Diego).
Fifth Regiment, Nicaragua (Home Station, Quantico).
Sixth Regiment, China (Mobilized from navy yards).
Seventh Regiment, (Reserves).
Eighth Regiment, (Reserves).
Ninth Regiment, (Reserves).
Tenth Regiment, Artillery, China (Home Station, Quantico).
Eleventh Regiment, Nicaragua (Mobilized from navy yards).

East Coast and West Coast expeditionary forces are maintained in normal times at Quantico, Va., and San Diego, California. Normally they are kept at such strength that one regiment of infantry and one regiment of artillery can be ordered out from Quantico on short notice. The nucleus is also maintained for all of the special troops of an infantry division. One regiment of infantry is ordinarily kept at San Diego.

Detachments are maintained on thirty-two vessels of the Navy, the size of the ship's detachment varying with the size of the ship, flagships also having larger complements. The average strength of the Marine detachment of a battleship is seventy-five men. Within the fleet, the detachments are organized as companies of Marine battalions, one battalion to a division of four ships. These battalions are, in turn, organized into regiments but such regiments are not assigned numbers. There are normally about 2000 men at sea, but, due to the need of additional troops for election duty in Nicaragua,

there are now about 1178 men from Marine ships' detachments on expeditionary duty ashore in that country.

Marine Corps Aviation is a branch of Naval Aviation, all material being furnished by the Navy. There are 104 officers and warrant officers, and 908 enlisted men authorized for Marine Corps Aviation. Aircraft Squadrons are maintained at Quantico and San Diego, as part of the expeditionary forces. Aircraft Squadrons are also maintained in Haiti and at Guam. At the present time, part of the aircraft squadrons from Quantico, San Diego and Guam are serving in China and Nicaragua.

The Marine Corps has a reserve of a present strength of 8800 officers and men. These are assigned to four reserve regiments corresponding to the eastern, western, central and southern parts of the United States and to certain independent reserve companies not part of reserve regiments.

TARGET PRACTICE

As a result of the five divisional rifle and pistol competitions held this spring, all medal winners, including distinguished marksmen and distinguished pistol shots winning places, were assembled at Marine Barracks, Quantico, Va., to participate in the Marine Corps Rifle and Pistol Competitions and team tryout. In the case of the Asiatic Division competitions, however, only gold and silver medal winners as recommended by the executive officer were transferred to the United States.

The Marine Corps Rifle and Pistol Competitions were held on June 18th and 19th. The names of the successful competitors, together with their scores and kind of medal awarded, are as follows:

Rifle Competition

Stg.	*Name*	*Rank*	*Post*	*Score*	*Medal*
1.	Penley, Dean R.	Sgt.	Parris Island	763	Gold
2.	Simmons, Charley J.	Sgt.	Haiti	755	Gold
3.	Reese, Stanley O.	Pvt.	Haiti	752	Silver
4.	Raines, Carl	Pvt.	China	749	Silver
5.	Bledsoe, Leslie R.	Pvt.	China	749	Bronze
6.	Morf, Henry	GySgt.	San Diego	744	Bronze
7.	McConnell, Donald A.	Pvt.	China	744	Bronze
8.	Tiete, Joseph R.	Sgt.	Parris Island	743	Bronze
9.	Robbins, Lesley L.	Pvt.	Quantico	743	Bronze
10.	Hessler, Victor	Cpl.	San Diego	742	Bronze

Pistol Competition

Stg.	*Name*	*Rank*	*Post*	*Score*	*Medal*
1.	Walker, Leonard A.	Pvt.	China	511	Gold
2.	Pulver, William F.	Sgt.	Quantico	509	Silver
3.	Smith, William P.	Sgt.	MB, Nyd, Wash.	493	Bronze
4.	Simmons, Charley J.	Sgt.	Haiti	488	Bronze
5.	Lahme, Paul W.	Sgt.	China	486	Bronze

The Lauchheimer Trophy was awarded to Corporal Edward Russell for attaining the highest aggregate score in the Marine Corps Rifle and Pistol competitions. Sergeant James R. Tucker, winner of the trophy last year,

took second place finishing a fraction of point behind the winner. Medals awarded in connection with the match were won by the following:

Stg.	*Name*	*Rank*	*Post*	*Score*	*Medal*
1.	Russell, Edward	Cpl.	Quantico	625.102	Gold
2.	Tucker, James R.	Sgt.	Quantico	624.990	Silver
3.	Pulver, William F.	Sgt.	Quantico	616.679	Bronze

Immediately following the Marine Corps competitions, the Elliott Trophy Team Match was fired. A team representing the Marine Barracks, Parris Island, S. C., won the match with a score of 1515. That the match was closely contested was attested by the scores compiled by the teams from Haiti and Quantico, 1510 and 1505, respectively. The Wirgman Trophy, awarded in connection with the Elliott Trophy match to the team representing a post whose complement is less than 300, was won by the Marine Barracks, Washington, D. C., whose team took fourth place with a score of 1462.

QUANTICO VS. NAVAL ACADEMY

The Quantico Post Rifle Team defeated the Naval Academy Rifle Team by forty points in their annual match at Annapolis, Md., this spring. The Quantico team was composed mostly of enlisted men while the Academy team was represented entirely of midshipmen. The match was fired over the regular National Match course with the exception of the 1000-yard stage.

SAN DIEGO TROPHY MATCH

The San Diego Trophy Match, held immediately following the Western Division Pistol Competition, was won by the team representing San Diego with a score of 1502, thirteen points over the score attained by the team representing Pearl Harbor, T. H., which finished second. The two other teams participating finished in the order named, Mare Island, Calif., and Puget Sound, Wash.

NEW RECORD ESTABLISHED IN MARINE CORPS COMPETITION

Sergeant Dean R. Penley, attached to Marine Barracks, Parris Island, S. C., was the outstanding rifle shot in the Marine Corps Rifle Competition held at Marine Barracks, Quantico, Va., among a field of forty-four competitors selected to compete therein by virtue of being medal winners in the five divisional competitions.

In firing the last of the two regular rifle qualification courses prescribed for the competition, Sergeant Penley turned in a remarkable performance to excel the record for this course by amassing a score of 348 out of a possible 350. His shooting eclipsed the record of Corporal Francis J. Shannon, of 347 made during the Western Division Rifle Competition at San Diego, Calif., in 1926.

MARINE CORPS RIFLE AND PISTOL TEAM

The organization of the Marine Corps Rifle and Pistol Team was effected shortly after the completion of the Elliott Trophy Match. The team squad,

composed of six officers and sixty-eight enlisted men, left Quantico, Va., June 22, for Wakefield, Mass., where the team will be in training at the rifle range there, and its members given a course of instruction at the Marine Corps Small Arms Firing School.

Major J. C. Smith has been selected as team captain, and Chief Marine Gunner Calvin A. Lloyd assigned as team coach.

The enlisted personnel of the team is composed mostly of men in their first enlistment and who have never before competed in matches regularly participated in by a National Team. This condition will find the Marine Corps ready to meet the requirements in certain changes made in the rules and regulations governing the National Matches this year. One of the changes provides that at least 60 per cent of the shooting members of each team representing the several branches of the Army, the Navy, and the Marine Corps, shall be men who have never before shot as members of any national match rifle team. Another change requires that the list of names of officials and other members of a team as presented by the team captain upon arrival at the range shall NOT EXCEED FIFTEEN ELIGIBLES from among whom the team shall be finally selected.

Before leaving for Camp Perry, Ohio, the team will participate in rifle and pistol matches sponsored by the United Services of New England during the month of August.

U. S. COAST GUARD TEAM TRAIN AT QUANTICO

The U. S. Coast Guard sent a detachment of four officers and fifty enlisted men to the Marine Barracks, Quantico, Va., early in June for marksmanship training preparatory to the selection of a rifle team squad to compete in the National Matches at Camp Perry, O., in September. Following the organization of the team a short period of training under the conditions similar to the matches was conducted, after which the team was transferred to Wakefield, Mass., with the Marine Corps Rifle and Pistol Team Detachment, for further training.

At the request of the Coast Guard, a Marine Corps officer will be assigned to their team to assist in training its members. Ens. S. C. Lenholm. U.S.C.G., is captain of the team, and Lieut. H. E. Grogan, U.S.C.G., is detailed for service as coach in addition to the coach from the Marine Corps.

SMALL BORE TARGET PRACTICE FOR MARINE CORPS RESERVE

On June 30, 1928, the Major General Commandant having approved small bore target practice for the Marine Corps Reserve, steps were immediately taken by the Target Practice Section to draw up the necessary details therefor. Four (4) M-1922 M-1 calibre .22 U. S. rifles and four (4) extra magazines were shipped to each Fleet Marine Corps Reserve company from the Depot of Supplies, Philadelphia, Pennsylvania. Due to the limited appropriation available for the training of reservists for the fiscal year 1929, no allowance of .22 calibre ammunition could be granted this fiscal year. It is the intention of the Major General Commandant to provide for such allow-

ance in the estimates for the reserves for the next fiscal year. The actual number of rounds required in firing the Marine Corps .22 calibre course is seventy. It is intended to establish an annual allowance of 200 rounds per reservist. This will permit of sixty rounds for instruction, seventy rounds for a trial run over the course and seventy rounds for record practice. There will be in 1928-1929 a total of sixteen Fleet companies, each of which is authorized a total of ninety-six officers and enlisted men. This means a total annual expenditure of 307,200 rounds, at $3.41 per thousand, the estimated cost thereof will be $10,475.52. As during this fiscal year (1929) only $60,000 was available for training of the Marine Corps Reserve, it was obvious that the ammunition allowance could not be granted this year. However since many of the company officers have stated that they would provide the necessary ammunition from their own company funds and urgently requested that the .22 calibre rifle be issued, such request was approved.

The Marine Corps .22 calibre rifle course has been used in training recruits at Parris Island and San Diego for the past six months. This course is as given on following page.

From an inspection of the course, it will be noted that it is an exact miniature of the .30 calibre rifle course. Such similarity tends to familiarize the firer with the conditions of the .30 calibre course so that he will be fully cognizant of the outdoor course when he arrives on the rifle range for his record practice. A score of 300 indicates that the firer is competent to take up .30 calibre firing.

The following regulations were promulgated and intended to govern all Fleet Marine Corps Reserve companies in the use, care of, and preservation of the U. S. Rifle M-1922 M-1, calibre .22:

(a) U. S. Army Training Regulations 1300-22 A will be the main guide in the use of this rifle as well as for requisitions for replacements of spare parts.

(b) Only calibre .22 long rifle non-corrosive primer ammunition will be used.

(c) Training regulations 150-5 (omitting Section II) and the Marine Corps Aiming Device (devised by Gunnery Sergeant R. Shaker, U.S.M.C.) will be used exclusively in the preliminary training of men prior to actual firing.

(d) The Marine Corps .22 calibre course will be made a part of the marksmanship training of all men; to be fired preferably just prior to the departure of the companies for their annual active duty training.

In order to further encourage small-bore rifle marksmanship, these headquarters forwarded to teach company complete data on the National Rifle Association Small-Bore competitions. It was suggested that, if so desired, each reserve company affiliate with the National Rifle Association as a civilian rifle and pistol club in order to be eligible to compete in these rifle matches, as well as to qualify for the small-bore rifle marksmanship insignia (medals) issued by that association. It is hoped that the reserve companies will par-

RIFLE QUALIFICATION

Marine Corps Small-Bore Course

Fifty Feet Indoor or Outdoor Range

Slow Fire

Range	Representing	Time	Shots	Target	Position
50 Ft.	200 yards	No limit	10	A	Standing
50 Ft.	300 "	"	10	A	5 sitting 5 kneeling
50 Ft.	500 "	"	10	B	Prone
50 Ft.	600 "	"	10	B	Prone with sand bag rest.

Rapid Fire

Range	Representing	Time	Shots	Target	Position
50 Ft.	200 yards	1 minute	*10	D	sitting or kneeling from standing
50 Ft.	200 "	1 minute 10 seconds	*10	D	Prone from standing
50 Ft.	500 "	1 minute 20 seconds	*10	D	Prone

*NOTE—Rapid fire should be shot in two (2) strings, each string consisting of five fired shots and five snapped shots.

QUALIFICATION

The requirements are the same as those for the .30 calibre marksmanship qualification course.

ticipate in these N. R. A., State and civilian competitions and enhance the prestige of the Marine Corps in small arms marksmanship.

The target practice year for the regular Marine Corps is the calendar year. This conflicts with the fiscal year for the appropriations for the reserves in that it is contemplated to request the necessary funds for the purchase of .22 calibre rifle ammunition for the reserves for the fiscal year 1930. This forces us to establish the target practice year for the reserves the same as the fiscal year.

Small-bore rifle marksmanship training will be extended to regular service beginning the target practice year 1929.

MARINE CORPS RESERVE

On July 8, 1928, training camps for the annual active duty training of the personnel of the Marine Corps Reserve were opened at the Marine Barracks, Quantico, Va., and at the Marine Corps Base, Naval Operating Base, San Diego, Calif. Only one training camp was prescribed for San Diego, whereas two such camps were ordered to be established at Quantico, the first camp covering the period July 8-21, 1928, and the second camp from July 29 to August 11, 1928.

The following Marine Corps Reserve personnel were directed to report at Quantico for their annual active duty and training: (First camp).

301st Co. F.M.C.R., Boston, Mass.

Captain Arthur E. Lyng, F.M.C.R., Commanding.
Second Lieutenant Samuel D. Irwin, F.M.C.R.
Second Lieutenant Donald E. Mackay, V.M.C.R.

305th Co. F.M.C.R., Philadelphia, Pa.

First Lieutenant Howard S. Evans, F.M.C.R., Commanding.
First Lieutenant George E. Eakin, F.M.C.R.
First Lieutenant Edgerton C. Warburton, V.M.C.R.

306th F.M.C.R., Detroit, Mich.

First Lieutenant William V. Calhoun, F.M.C.R., Commanding.
Second Lieutenant Stephen Gillis, F.M.C.R.
Second Lieutenant Harold D. Golds, V.M.C.R.

311th Co. F.M.C.R., Toledo, Ohio

Second Lieutenant Iven C. Stickney, F.M.C.R., Commanding.

310th Co. F.M.C.R., New Orleans, La.

Second Lieutenant Alfred A. Watters, F.M.C.R., Commanding.

For duty with above organizations.

Major James F. Rorke, F.M.C.R.
Second Lieutenant Dewey A. Routh, F.M.C.R.
Second Lieutenant Walter J. Barnes, F.M.C.R.
Marine Gunner G. W. Harbaugh, F.M.C.R.

For instruction in Field Officers' Course at Marine Corps Schools

Major Ralph L. Schiesswohl, F.M.C.R.
Major Russell W. Duck, F.M.C.R.
Captain James Wood, F.M.C.R.
Captain William J. Platten, F.M.C.R.
Captain Chester L. Fordney, F.M.C.R.
Captain Nimmo Old, Jr., F.M.C.R.
Captain Harry G. Fortune, F.M.C.R.
Captain John Ayrault, Jr., F.M.C.R.
Captain Edward P. Simmonds, F.M.C.R.
Captain Robert K. Ryland, F.M.C.R.

Captain Thomas H. Hart, F.M.C.R.
Captain Victor A. Barraco, V.M.C.R.
Captain Bertrand T. Fay, F.M.C.R.

For instruction in the Company Officers' Course at Marine Corps Schools

Captain Charles A. Ketcham, F.M.C.R.
Captain Frank B. Wilbur, F.M.C.R.
Captain John H. Layne, F.M.C.R.
Captain Stanley A. Beard, V.M.C.R.
First Lieutenant Oscar B. Kaufman, F.M.C.R.
First Lieutenant William R. Sheets, F.M.C.R.
First Lieutenant Carl A. Janson, F.M.C.R.
First Lieutenant Raymond B. Hanson, F.M.C.R.
First Lieutenant Ira F. Gillikin, F.M.C.R.
First Lieutenant Victor W. Worledge, F.M.C.R.
First Lieutenant George R. Lewis, F.M.C.R.
First Lieutenant Roy H. Burton, V.M.C.R.
First Lieutenant Harry S. Davis, F.M.C.R.
First Lieutenant Leonard Kinsell, F.M.C.R.
First Lieutenant Carl R. Berglund, F.M.C.R.
First Lieutenant Troy A. Nubson, V.M.C.R.
First Lieutenant Robert E. Barrett, F.M.C.R.
First Lieutenant Clarence L. Jordan, F.M.C.R.
First Lieutenant Joseph J. Hurley, V.M.C.R.
First Lieutenant Frederick C. Donald, F.M.C.R.
First Lieutenant Henry T. Waller, F.M.C.R.
First Lieutenant Carleton Penn, F.M.C.R.
First Lieutenant Philip R. Hockenberger, V.M.C.R.

For instruction in the Signal School

Captain Carlton Hill, F.M.C.R.
First Lieutenant Windsor B. W. Stroup, F.M.C.R.
First Lieutenant John D. Marine, F.M.C.R.
First Lieutenant Lee Fox, F.M.C.R.
First Lieutenant John M. Dervin, V.M.C.R.
First Lieutenant Carlton A. Fisher, F.M.C.R.
First Lieutenant Corwin R. Bennett, F.M.C.R.
First Lieutenant Henry S. Wheeler, V.M.C.R.
Second Lieutenant Frank B. Birthright, F.M.C.R.

The following Marine Corps Reserve personnel were directed to report at San Diego for their annual active duty training: (July 9-21, 1928).

307th Co. F.M.C.R., Los Angeles, Calif.

Captain Guy Lewis, F.M.C.R., Commanding.
First Lieutenant Allan I. Schmulian, F.M.C.R.
First Lieutenant James M. Burns, V.M.C.R.

For instruction in Field and Company Officers' Course (Schools) and Signal School.

Captain William H. Abrams, F.M.C.R.
Captain Carroll F. Byrd, F.M.C.R.
Captain Frank M. Cross, F.M.C.R.
Captain Richard L. Dineley, F.M.C.R.

Captain John J. Flynn, F.M.C.R.
Captain Baldwin W. Foote, F.M.C.R.
Captain George M. Goodman, F.M.C.R.
Captain Lloyd A. Houchin, F.M.C.R.
Captain William O. McKay, F.M.C.R.
Captain Frank C. Myers, F.M.C.R.
Captain James M. Wallace, F.M.C.R.
First Lieutenant Clay A. Apple, F.M.C.R.
First Lieutenant Clarence H. Baldwin, F.M.C.R.
First Lieutenant Frederick W. Hopkins, F.M.C.R.
First Lieutenant James P. J. McKevitt, F.M.C.R.
First Lieutenant John C. Machamer, F.M.C.R.
First Lieutenant Robert M. Mount, F.M.C.R.
First Lieutenant David F. Ross, F.M.C.R.
First Lieutenant Harold A. Strong, F.M.C.R.
First Lieutenant Lewis M. Andrews, F.M.C.R.
First Lieutenant Ralph E. Boulton, V.M.C.R.
First Lieutenant Eugene Bradford, F.M.C.R.
First Lieutenant Horace W. Card, V.M.C.R.
First Lieutenant Kenneth P. Corson, V.M.C.R.
First Lieutenant James D. Gillespie, V.M.C.R.
First Lieutenant Kenneth G. Hutchinson, V.M.C.R.
First Lieutenant James C. Jackman, V.M.C.R.
First Lieutenant Albert C. Keuhnert, V.M.C.R.
First Lieutenant Ewart S. Laue, V.M.C.R.
First Lieutenant Robert E. MacFarlane, V.M.C.R.
First Lieutenant Lloyd C. McInroe, V.M.C.R.
First Lieutenant Timothy B. E. McLure, V.M.C.R.
First Lieutenant James L. Osborne, V.M.C.R.
First Lieutenant Cecil C. Phelps, V.M.C.R.
First Lieutenant John B. Philbin, F.M.C.R.
First Lieutenant George M. Pierce, V.M.C.R.
First Lieutenant Stafford F. Potter, F.M.C.R.
First Lieutenant Lewis E. Rector, F.M.C.R.
First Lieutenant John G. Reinhardt, V.M.C.R.
First Lieutenant Arthur C. Shepard, F.M.C.R.
First Lieutenant William C. Shiels, V.M.C.R.
First Lieutenant Hugo Sigmund, V.M.C.R.
First Lieutenant Harold B. West, F.M.C.R.

NOTE.—No report has been received from San Diego as to the names of the above officers who took the respective courses.

The following Marine Corps Reserve personnel were directed to report at Quantico for their annual active duty training: (Second camp).

302nd Co. F.M.C.R., Rochester, N. Y.

First Lieutenant Edward F. Doyle, F.M.C.R., Commanding.
Second Lieutenant Malcolm B. Galbreath, V.M.C.R.
Second Lieutenant George F. Doyle, V.M.C.R.

303rd Co. F.M.C.R., New York, N. Y.

Captain Philip DeRonde, F.M.C.R., Commanding.
First Lieutenant Robert B. Fisher, F.M.C.R.

304th Co. F.M.C.R., Brooklyn, N. Y.

First Lieutenant Frank V. McKinless, F.M.C.R., Commanding.
Second Lieutenant Milton V. O'Connell, F.M.C.R.
Second Lieutenant Mark F. Kessenich, V.M.C.R.

309th Co. F.M.C.R., Philadelphia, Pa.

Second Lieutenant Howard N. Feist, F.M.C.R., Commanding.
Second Lieutenant Ernest S. Kaylor, V.M.C.R.

For duty with above organizations.

Major Louis F. Timmerman, F.M.C.R.
First Lieutenant St. Julian R. Childs, F.M.C.R.

For instruction in the Basic Course.

Captain Bernard W. Bierman, V.M.C.R.
First Lieutenant H. A. Hedges, V.M.C.R.
Second Lieutenant Thomas P. Jackson, F.M.C.R.
Second Lieutenant Carl G. Seasword, F.M.C.R.
Second Lieutenant Paul Sullivan, V.M.C.R.
Second Lieutenant Philip G. Strong, F.M.C.R.
Second Lieutenant Donald C. O'Reagan, V.M.C.R.
Second Lieutenant William D. O'Brien, F.M.C.R.
Second Lieutenant Elias F. Haddad, F.M.C.R.
Second Lieutenant Harry C. R. Klemfuss, V.M.C.R.
Second Lieutenant George W. Eighmy, F.M.C.R.
Second Lieutenant Owen E. Jensen, F.M.C.R.
Second Lieutenant John S. Egan, F.M.C.R.
Second Lieutenant George A. Whiteley, V.M.C.R.
Second Lieutenant James C. Bell, V.M.C.R.
Second Lieutenant John J. Jesse, Jr., V.M.C.R.
Second Lieutenant Floyd E. Smith, F.M.C.R.
Second Lieutenant Richard W. Secy, V.M.C.R.
Second Lieutenant William R. Priddy, V.M.C.R.
Second Lieutenant Arthur W. Stowe, V.M.C.R.
Second Lieutenant Ramon B. Ford, V.M.C.R.
Second Lieutenant Gooderham L. McCormick, F.M.C.R.
Second Lieutenant Edwin C. Johnson, V.M.C.R.
Second Lieutenant Victor H. Lenge, V.M.C.R.
Second Lieutenant Thomas P. Barton, V.M.C.R.
Second Lieutenant O. P. Wolcott, V.M.C.R.
Second Lieutenant Lester W. Johnson, V.M.C.R.
Second Lieutenant Joseph T. Hoffmann, V.M.C.R.
Second Lieutenant John H. Pigg, V.M.C.R.
Second Lieutenant Albert F. Sisson, V.M.C.R.
Second Lieutenant Thomas T. Holloway, Jr., V.M.C.R.
Second Lieutenant Richard A. Taussig, V.M.C.R.
Second Lieutenant James A. McNamara, V.M.C.R.
Second Lieutenant Carroll B. Grace, Jr.
Second Lieutenant Allan M. Abele, V.M.C.R.
Second Lieutenant Charles H. Schaeffer, F.M.C.R.
Second Lieutenant Benjamin M. Stern, V.M.C.R.
Second Lieutenant James J. Christie, F.M.C.R.

Second Lieutenant Malcolm A. McDonald, V.M.C.R.
Second Lieutenant Walter A. Maxwell, V.M.C.R.
Second Lieutenant Alfred H. Benjamin, V.M.C.R.
Second Lieutenant Robert C. Bradford, V.M.C.R.
Second Lieutenant Melvin L. Krulewitch, V.M.C.R.
Second Lieutenant Rex Saffer, F.M.C.R.
Second Lieutenant William M. Parker, V.M.C.R.
Second Lieutenant Howard S. Tull, V.M.C.R.
Second Lieutenant Edwin B. Rose, V.M.C.R.
Second Lieutenant Warren E. Sweetser, Jr., V.M.C.R.
Second Lieutenant William E. Hooper, V.M.C.R.
Second Lieutenant Lawrence J. Denmire, V.M.C.R.
Second Lieutenant Stephen E. Gillis, F.M.C.R.

For instruction in the Signal School.

Second Lieutenant Arthur E. Mead, F.M.C.R.
Second Lieutenant William F. Murray, V.M.C.R.
Second Lieutenant Harold M. Keller, V.M.C.R.
Second Lieutenant Russell I. Whyte, V.M.C.R.
Second Lieutenant George B. Sheldon, Jr., F.M.C.R.
Second Lieutenant Willard L. Hart, V.M.C.R.
Second Lieutenant Bertram Kalisch, F.M.C.R.
Second Lieutenant Howard H. Adams, V.M.C.R.
Second Lieutenant Clark W. Thompson, V.M.C.R.

The curriculum of the Field Officers' Course was as follows:

Combat Orders	7 hours
Equitation	2 hours
Field Engineering	4 hours
Map Maneuvers	8 hours
Military Organization	4 hours
Solution of Map Problems	4 hours
Tactics and Technique	38 hours
Total	67 hours

The theoretical instruction was enhanced greatly by the conduct of tactical walks and map exercises. A very highly instructive lecture in military history was given over the Chancellorsville battlefield to which the entire class made a visit.

The curriculum of the Company Officers' Course was as follows:

Aviation	3 hours
Camp Sanitation	1 hour
Drill and Command	8 hours
Field Engineering	4 hours
Map Reading	4 hours
Overseas Operations	1 hour
Pistol Marksmanship	9 hours
Rifle Marksmanship	12 hours
Tactics and Technique	22 hours
Total	64 hours

The subjects embraced in the Basic Officers' Course were as follows:

Correspondence Schools	
Lecture and Visit	1 hour
Drill and Command	15 hours
Infantry Weapons	
Automatic Rifle	4 hours
Bayonet	5 hours
Grenades	4 hours
Map Reading	2 hours
Pistol Marksmanship	9 hours
Rifle Marksmanship	16 hours
Tactics	8 hours
Total	64 hours

Next year the course will include instruction in the 37 m/m gun, 3 inch trench mortar and machine guns.

The schedule for the Fleet Reserve Companies included the following subjects:

Military Courtesy, customs of the Service and history of the Marine Corps.
Drill, the rifle squad, platoon and company.
Combat principles (squad, section, platoon and company).
Musketry.
Scouting and Patrolling.
Instruction with bayonet.
The Infantry pack, tent drill, display of equipment, etc.
First aid and personal hygiene.
Formal and informal guard mounting.
Dismounted ceremonies (reviews, parades, inspections, escorts, etc.).
Marksmanship: rifle, pistol and automatic rifle.

The course for Reserve Officers at the Signal School, Marine Barracks, Quantico, Va., for both terms was as follows:

1. *Duties of the Signal Officer in the Infantry Organization.*
2. *Basic Instruction.*—Care and handling of tools. Wire splicing.
3. *Message Center.*—Organization and operation. Records. Field messages.
4. *Wire Telephony.*—Types of telephones in use in Marine Corps. Maintenance and operation of telephones. Telephone testing. Types of switchboards. Test, maintenance, and operations of switchboards. Headquarters installation. Wire laying and tagging. Tests and maintenance of wire lines. Maintenance of communication during Movement.
5. *Electricity.*—Basic principles. Elementary circuits. Units. Measuring instruments.
6. *Radio.*—Practical installation and operation of the SCR 130. Radio net operation.
7. *Field Work.*—Practical demonstration of the "hook up" and operation of radio and telephone net in the Infantry Regiment and Brigade. Problem in the above, entirely supervised by students, involving the actual installation, and operation of telephone and Radio Nets and Message Center, and the Maintenance of Communications during Movement.

Certificates of Proficiency for the first year's work were issued to all reserve officers who successfully completed the courses of instruction. Next year upon completion of the second term, diplomas will be issued upon final graduation from these respective schools.